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Development of Animated Video Media Material of *Fusion Food* For Culinary Expertise Students (SMKN 3 Tangerang)

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Abstrak

The purpose of this study is to develop and assess the feasibility of animated video learning media for fusion food material for Culinary expertise students at SMKN 3 Tangerang. This research is a type of Research & Development research with a 4D model. Data collection techniques used observation, interviews, and questionnaires. The results of the study showed that the validation of the material expert's assessment obtained an average of 79.23% with the category of Feasible. The media expert's assessment obtained an average of 78.66% with the category of Feasible. And the language expert's assessment obtained an average of 86.66% with the category of Very Feasible. While the results of the initial field trial obtained an average of 78.60% with the category of Feasible, the results of the small group trial obtained an average of 83.37% with the category of Feasible, and the large group trial obtained an average of 88.67% with the category of Very Feasible. The assessment of the user response test results obtained an average of 97.78% with the category of Very Interested. It can be concluded that the development of animated video media for fusion food material for culinary expertise students (SMKN 3 Tangerang) is declared suitable to be used as a learning resource.

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1. INTRODUCTION

An educator must be able to design learning media that meets students' knowledge needs and adapts to technological developments to support learning (Sadewo, 2020). Therefore, in order to create innovative, intelligent, and adaptable students in the digital era, educational institutions must adapt to the industrial revolution 4.0. In this effort, one step that can be taken is to utilize learning video media as an innovative medium that is useful for delivering material that is relevant to the needs of the digital era.

Video media is a type of *visual* media *which* refers to learning media that can be seen visually and heard. (Ardhianti, 2022). As a learning medium, video is effective for use in large-scale learning processes, both individual and group. (Daryanto, 2012). One type of video media is animated video. Animated video media is an audiovisual medium that combines moving animated images with audio followed by animated characters. (Rahmayanti, 2018). Animated videos consist of a series of moving images of an object, given certain effects to make it appear realistic and engaging. By using animated video media, the learning process becomes fun, innovative, and varied. Students will feel more motivated to pay attention to the lesson and will find it easier to understand what is being learned.

Relevant research conducted by Putri, Hilfa (2016) stated that the use of animated video learning media has proven to be more effective as a varied learning medium, compared to conventional

learning media. This shows that the implementation of the use of animated video learning media has quite large potential to be implemented in various educational institutions as an innovative step that is worth considering to improve the quality of teaching and learning in various schools, including at SMKN 3 Tangerang.

SMKN 3 Tangerang is a vocational high school with several expertise programs, namely Hotel Accommodation, Culinary (Culinary Arts), Beauty Salon, Fashion Design & Production, and Computer & Network Engineering. Culinary (Culinary Arts) is a Expertise program of SMKN 3 Tangerang which focuses on the culinary industry at national and international levels.

The Culinary Arts program has a Culinary Elective Course, which is mandatory for 11th grade students. The teacher and Culinary Coordinator at SMKN 3 Tangerang stated that one of the competencies taught is food processing. *fusion food.* According to Sarioglan (2014), *fusion food* means mixing and combining various techniques and ingredients from various countries to be mixed and combined on a plate intentionally. Evangelista (in Wilujeng, 2019) states that *fusion food* divided into 3 types, namely: *sub-regional fusion, regional fusion,* and *continental fusion.* The learning process consists of theoretical lessons and practical activities. The theoretical lessons provide an explanation of the definition, history, types, requirements, and examples. *fusion food* goal is to broaden students' knowledge and equip them with basic material processing. Then, practical activities are conducted so that students' skills can be assessed or tested.

Distribution material *fusion food* It requires clear, precise examples of images and text. However, the PowerPoint presentations used do not harmonize the combination of images, text, and audio to capture students' attention. The teaching process, which does not utilize the internet, such as video, is in stark contrast to today's technological advances. The presentation of material is less varied and boring, with many students engaging in irrelevant tasks and enjoying chatting with their peers during the learning process. Some students even admit they don't fully understand the material presented.

The results of the needs analysis survey that researchers conducted on class XI Culinary students in August 2024 stated that only 4 students were considered successful, while 12 students were still considered unsuccessful in understanding the material of *fusion food in* this case could certainly hinder the achievement of learning objectives at SMKN 3 Tangerang. Therefore, developing or updating learning media is essential in cases like this.

Based on the description of the background of the problem above, it can be seen that there is still a crucial need to improve the feasibility of learning at State Vocational School 3 (SMKN 3) Tangerang, especially in the delivery of complex material such as *fusion food.*To overcome these challenges, the author decided to design and develop animated video media for the material. *fusion food which* is not only interesting, but also able to facilitate students' understanding.

2. MATERIALS AND METHODS

This research was designed with development research of *Research and Development* (*R&D*). According to Sugiyono (2018),*Research and Development* (*R&D*) is a research method used to produce a particular product which is then tested for its effectiveness. In other words, research using this method of *Research and Development* (*R&D*) is used in research that develops a product into a new, more feasible and effective product. According to Mulyatiningsih (in Amalia, 2022), development products in the field of education can include models, media, equipment, books, modules, learning evaluation tools such as curriculum, school policies, and others. This research developed a product in the form of animated video learning media on the material of *fusion food.* The steps of the 4D development model according to Thiagarajan, et al. (in Arum, A.P., 2020) consist of four development stages, namely *Define, Design, Develop, dan Disseminate.* This research involved targets, namely culinary expertise students of class XI of State Vocational School 3, Tangerang City.

According to Sugiyono (in Amalia, 2022), a research instrument is a tool used to measure data in research or as a measuring tool used in observing a natural or social phenomenon. The instrument used in this study was a test/questionnaire consisting of expert validation sheets (media, material, and language) to determine the feasibility of the media for developing animated video materials of *fusion food* as well as user trial sheets and student response questionnaires given to class XI Culinary vocational students of SMKN 3 Tangerang to test the feasibility of animated video learning media for fusion food material before it was launched.

Data collection techniques are used to obtain data. According to Iskarina (2023), observation is defined as systematically recording behavior by directly observing the behavior of individuals or groups being studied. The observations conducted in this study were direct, in order to obtain information regarding the quality of the learning process. Interviews are a data collection technique through asking a number of questions verbally to the interviewed subjects (Iskarina, 2023). In this study, interviews were conducted with teachers of the Culinary Elective Subject, thus obtaining data regarding problems and potentials faced during the learning process at school, particularly in the presentation of material of *fusion food.*

A questionnaire is a list containing a series of questions or statements regarding a problem or field to be researched (Sugiyono in Amalia, 2022). In this study, the questionnaire was used to measure the feasibility of animated video development media, conducted by experts, and to assess user responses to the developed media. The questionnaire was also used as a data collection tool to strengthen the data obtained from the interview method regarding needs observations in the presentation of the material of *fusion food*.

Data analysis is an effort to systematically search for and organize data from observations, interviews, and other sources to improve the researcher's understanding of the case being studied (Iskarina, 2023). The scale used in the questionnaire is a Likert scale (five points) for expert validation (media, material, language), user validation trials, and student responses. The questionnaire instrument was used to obtain data from experts and students as evaluation material for the development of animated video learning media of *fusion food.*

3. RESEARCH RESULTS AND DISCUSSION

3.1 Product Development

3.1.1 Level *Define* (Definition)

The definition stage is the earliest stage in research into the development of animated video media material of *fusion food.* At this stage, 4 analyses were carried out including: initial needs, student characteristics, concepts and learning objectives.

3.1.2 Level *Design* (Planning)

At this stage, the researcher began to design animated video learning media for fusion food material starting from making the Media Content Outline (GBIM), Material Description (JM), Script, and *Storyboard.* After carrying out the design, the researcher then made video media using the application. *Canva Pro* and *Our Video Maker.*

3.1.3 Level *Development* (Development)

At this stage, the resulting animated video media product will go through a validation process with experts. The initial product is animated video media material of fusion food It must first be validated by experts (material, media, and language experts) to obtain a category that is suitable to be used as a learning medium before being tested on class XI culinary students.

The first trial stage is the initial field trial (one to one) involving 3 students in grade XI culinary specialization. Then, a small group field trial was conducted (small group) with a total of 7 students. After improvements were made to the media, the final stage was a large group field trial (field group test) by involving21 students.

After completing a large-scale field trial, to determine the level of user interest in the media provided, the researchers also conducted a user response trial by distributing a user response questionnaire to students. As a result, information was obtained that users feel very interestedwith animated video media material of *fusion food*.

3.1.4 Level *Disseminate* (Spread)

In this case, the researcher conducted a final evaluation of the presentation of animated video media material of *fusion food* which had been tested. Then, the researchers submitted the learning video media to the responsible culinary expertise teacher so that it could be optimally utilized as a learning resource in schools.

3.2 Product Qualification

3.2.1 Expert Validation

Table 1. Material Validation

No.	Rated aspect	Indicator	Assessment Score	Category	Percentage (%)
1.	**Learning materials**	Suitability of learning objectives	4	Worth it	**78,46%**
2.		Clarity and accuracy of material	3	Enough	
3.		The truth of the material concept is reviewed from a scientific aspect	4	Worth it	
4.		Depth of material	4	Worth it	
5.		Suitability of material to target	4	Worth it	
6.		Material breakdown	4	Worth it	
7.		Coverage of material	4	Worth it	
8.		Actualization of material	4	Worth it	
9.		The relationship between concepts	4	Worth it	
10.		Communication	4	Worth it	
11.		Cultivation of literacy	4	Worth it	
12.		Ease of material for students to understand	4	Worth it	
13.		Suitability of material to the intellectual development of students	4	Worth it	
14.	**Learning Motivation**	Strengthening students' learning motivation	4	Worth it	**80%**
15.		Involvement with the learning process	4	Worth it	
Mean			**79,23%**		
Category			**Worth it**		

Table 2. Media Validation

No.	Rated aspect	Indicator	Assessment Score	Category	Percentage (%)
1.	**On-Screen Display**	Clarity of media display	4	Worth it	**86,66%**
2.		Clarity of writing in the media	5	Very Worthy	
3.		Integration of color use	4	Worth it	
4.	**Animation**	Animation compatibility	4	Worth it	**80%**
5.		Consistency of transitions between animations	4	Worth it	

6.		Interest in animated display forms	4	Worth it	
7.	**Voice/*audio***	Clarity of background sound	3	Enough	**60%**
8.		Clarity of the narrator's voice	3	Enough	
9.	**Use of Dialog Text**	Dialog/text accuracy	4	Worth it	**80%**
10.		Clarity of type selection *font* in dialogue/text	4	Worth it	
11.		Dialogue/text color cohesion	4	Worth it	
12.		Consistency of dialogue/text transitions	4	Worth it	
13.	**Video Presentation**	Suitability of video presentation to learning objectives	4	Worth it	**80%**
14.		Suitability of video presentation to students	4	Worth it	
15		Student engagement with video	4	Worth it	
Mean			**78,66%**		
Category			**Worth it**		

Table 3. Language Validation

No.	Rated aspect	Indicator	Assessment Score	Category	Percentage (%)
1.	**Discussion**	Accuracy of language rules	4	Worth it	**85%**
2.		Appropriateness of the use of terms for the main concepts of the discussion	5	Very Worthy	
3.		Simplicity and standard language	5	Very Worthy	
4.		Language Politeness	5	Very Worthy	
5.		Accuracy of language selection	4	Worth it	
6.		Effectiveness of sentences	4	Worth it	
7.		Integration of material	3	Enough	
8.		Language Consistency	4	Worth it	
9.	**Understanding**	The ability to encourage students' curiosity	4	Worth it	**90%**
10.		Suitability of students' intellectual development	4	Worth it	
11.		Clarity of message	5	Very Worthy	
12.		Language Comprehension	5	Very Worthy	
13.	**Language Usage Rules**	Regularity of language use	4	Worth it	**86,66%**
14.		Code of ethics for writing and copyright	4	Worth it	
15.		Free from SARA, pornography/gender bias/region and profession issues	5	Very Worthy	
Mean			**86,66%**		

Category		**Very Worthy**			

3.2.2 Trial and Response

Table 4. Trials *One to One*

3 students					
No.	**Rated aspect**	**Indicator**	**Assessment Score**	**Category**	**Percentage (%)**
1.	**Media Attraction**	Interest in the appearance of animated video media	13	Worth it	**84,44%**
2.		Interest in increasing the desire to participate in learning	13		
3.		Interest in encouraging a desire to learn	12		
4.	**Media Design Quality**	Clarity and suitability of images on media	14	Worth it	**78,33%**
5.		Clarity and ease in reading dialogue/text	14		
6.		The accuracy of the dialogue/text with the material presented	13		
7.		The integration of display and background colors in the media	13		
8.		Selection of text color with appearance and background	12		
9.		Selection suitability *font* on the media	11		
10.		Voting/*audio* music	9		
11.		Clarity of sound/*audio*	8		
12.	**Ease of Media Use**	Ease of using media	11	Quite Decent	**73,33%**
13.		Ease of accessing media	11		
14.	**Clarity of Material Description**	Ease of understanding material in the media	11	Worth it	**75,55%**
15.		Clarity and accuracy of material in the media	11		
16.		Good use of material illustrations	11		
17.	**Use of Language**	Accuracy of symbols and punctuation	12	Worth it	**81,33%**
18.		Suitability of the Indonesian language used	12		
19.		Suitability of language to the characteristics and level of thinking of students	13		
20.		The simplicity of the language used	13		
21.		Interest in the use of language in media	11		
Mean			**78,60%**		
Category			**Worth it**		

Table 5. Trials *Small Group*

7 students					
No.	**Rated aspect**	**Indicator**	**Assessment Score**	**Category**	**Percentage (%)**
1.	**Media Attraction**	Interest in the appearance of animated video media	28	Very Worthy	**86,66%**
2.		Interest in increasing the desire to participate in learning	25		
3.		Interest in encouraging a desire to learn	33		
4.	**Media Design Quality**	Clarity and suitability of images on media	31	Worth it	**78,57%**
5.		Clarity and ease in reading dialogue/text	30		
6.		The accuracy of the dialogue/text with the material presented	31		
7.		The integration of display and background colors in the media	30		
8.		Selection of text color with appearance and background	25		
9.		Selection suitability font on the media	25		
10.		Voting/*audio* music	24		
11.		Clarity of sound/*audio*	24		
12.	**Ease of Media Use**	Ease of using media	29	Worth it	**80%**
13.		Ease of accessing media	27		
14.	**Clarity of Material Description**	Ease of understanding material in the media	30	Very Worthy	**87,61%**
15.		Clarity and accuracy of material in the media	30		
16.		Good use of material illustrations	32		
17.	**Use of Language**	Accuracy of symbols and punctuation	26	Worth it	**84%**
18.		Suitability of the Indonesian language used	28		
19.		Suitability of language to the characteristics and level of thinking of students	31		
20.		The simplicity of the language used	30		
21.		Interest in the use of language in media	32		
Mean			**83,37%**		
Category			**Worth it**		

Table 6. Trials *Field Group Test*

21 students					
No.	**Rated aspect**	**Indicator**	**Assessment Score**	**Category**	**Percentage (%)**
1.	**Media Attraction**	Interest in the appearance of animated video media	97	Very Worthy	**90,16%**
2.		Interest in increasing the desire to participate in learning	92		
3.		Interest in encouraging a desire to learn	95		
4.	**Media Design Quality**	Clarity and suitability of images on media	95	Worth it	**83,69%**
5.		Clarity and ease in reading dialogue/text	94		
6.		The accuracy of the dialogue/text with the material presented	96		
7.		The integration of display and background colors in the media	92		
8.		Selection of text color with appearance and background	94		
9.		Selection suitability font on the media	89		
10.		Voting/*audio* music	76		
11.		Clarity of sound/*audio*	79		
12.	**Ease of Media Use**	Ease of using media	92	Very Worthy	**86,66%**
13.		Ease of accessing media	90		
14.	**Clarity of Material Description**	Ease of understanding material in the media	98	Very Worthy	**93,33%**
15.		Clarity and accuracy of material in the media	98		
16.		Good use of material illustrations	98		
17.	**Use of Language**	Accuracy of symbols and punctuation	89	Very Worthy	**89,52%**
18.		Suitability of the Indonesian language used	93		
19.		Suitability of language to the characteristics and level of thinking of students	95		
20.		The simplicity of the language used	97		
21.		Interest in the use of language in media	97		
Mean			**88,67%**		
Category			**Very Worthy**		

Table 7. Student Response Test

No.	Rated aspect	Indicator	Assessment Score	Category	Percentage (%)
1.	**Instructional Media**	Ease in understanding the language in the media	5	Very interested	**93,33%**
2.		Ease in understanding animation/images on media	4	Interested	
3.		Interest in the designs used in the media	5	Very interested	
4.		Clarity, ease, and interest in the presentation of dialogue/text	5	Very interested	
5.		Color combination in animation media	5	Very interested	
6.		Clarity in voice/*audio* in the media	4	Interested	
7.		Interest in the presentation of animation in the media	5	Very interested	
8.		Harmony of accompanying music in animated media	4	Interested	
9.		Ease of accessing media	5	Very interested	
10.	**Learning materials**	Simplicity of material in media	5	Very interested	**100%**
11.		Suitability of the material contained in the media	5	Very interested	
12.	**Learning Motivation**	Interest in the use of animated media	5	Very interested	**100%**
13.		Strengthening learning motivation in animation media	5	Very interested	
Mean			**97,78%**		
Category			**Very interested**		

4. THE KNOT

It can be concluded that the development of animated video media material of *fusion food by* using the 4D development model. In the definition stage, it begins with an initial needs analysis, student analysis, concept analysis, and learning objectives analysis. From the analysis stage conducted through observation, interviews, and student questionnaires, information was obtained that the 11th grade culinary students at SMKN 3 Tangerang needed development in the learning media material of *fusion food* in the form of animated videos. Next, the design stage begins with the creation of GBIM, JM, scripts, and *story board to* determine the image that will be used as a guideline in product development. Then, continue with the creation of animated video media using the application of *Canva Pro* and *Our Video Maker.*

At the development stage, product validation was conducted with experts. From the validation results with these experts, the animated video development media obtained an average result of 79.23% with the category of Feasible by material experts, an average of 78.66% with the category of Feasible by media experts, and an average of 86.66% with the category of Very Feasible by language experts. To determine the feasibility of the product according to users, a product trial was conducted which went through 3 stages, namely: initial field trials with 3 students obtained an average of 78.60% with the category of Feasible, followed by small group trials with 7 students obtained an average of 83.37% with the category of Feasible, followed by large group trials with 21 students obtained an

average of 88.67% with the category of Very Feasible. To determine the response and satisfaction of users in using the product, a user response trial was conducted and obtained an average of 97.78% with the category of Very Interested. So, it can be concluded that the animated video development media material of *fusion food*. This is suitable for use as a learning resource at State Vocational School 3 Tangerang.

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