Developing adobe animate-based interactive learning media of table manner for university students

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A B S T R A C T

Culinary students faced difficulties in implementing proper table manner at hotel due to their lack of knowledge of how actual implementation of table manner should be. The purpose of this study was to develop Adobe Animate-based interactive learning media about table manner. This study employed Research and Development by Thiagarajan (1974). The data were collected through interview and questionnaire (need analysis and feasibility measurement). The subjects were students and lecturers of Culinary Study Program. The data were analyzed by using descriptive analysis. Adobe Animate-based interactive learning media about table manner was needed by students and lecturers according to their needs. The developed media consists of front display (university logo, material topic, and four buttons linked to the next page), materials, videos, and quiz. The feasibility test result of the developed media according to the material experts, media expert and students was respectively 4.45 (very feasible), 4.4 (very feasible), and 4.44 (very high acceptability). **Conclusion:** the developed media namely Adobe Animate-based interactive learning media about table manner is very feasible to be used as a learning media.

INTRODUCTION

In this modern era, technology has made an extraordinary influence on teaching and learning. Technological developments require the world of education to always innovate in the learning process (Saniriati et al., 2021). Technology has a role in increasing student independence in obtaining knowledge (Permendikbud No. 65. Th. 2013). The way technology integrated to education be found in the use of learning media.

In the learning process, good preparation of learning media is very necessary. Preparation of good learning media is a strategic step to achieve graduate learning outcomes. The use of learning media can affect learning motivation (Cahyanindya & Mampouw, 2020) so it will ultimately make students comprehend the subject matter. Even so, some educators use conventional methods and rarely use learning media (Alwi, 2017).

Multimedia learning method through simple interactive presentation media can provide and an enjoyable experience for both teachers and students. In addition to more varied learning, students can offers to learn and enjoy what he learns. (fathoni, dkk. 2019)

If the learning media have chosen correctly, the continuity of the learning process can run optimally (Ampera, 2017). In university, lecturers as educators were directed to be able to develop computer-based learning media and Information and Communication Technology (Murtikusuma et al., 2019; Saputra et al., 2020). The use of computer-based learning media can provide convenience in delivering information more quickly and flexibly (Wibawanto, 2017). Moreover, the use of computer-based media leads students to study independently, whenever they want, and apart from books (Abdullah & Yunianta, 2018).

Adobe-based media is a multimedia category that is feasible and practical to use as learning multimedia (sukarsih, dkk. 2019). One application that can be used to make computer-based learning media is Adobe Animate CC. Adobe Animate CC is a computer software designed by Adobe Systems. Adobe Animate CC was previously named Adobe Flash Professional, Macromedia Flash, and Future Splash Animator. According to Labrecque (2016) Adobe Animate CC is professional software used to create various types of projects including animation, interactive media,

games, smart phone applications, etc. In addition, Chun (2017) states that Adobe Animate CC is a comprehensive application for creating sophisticated animation and interactive media-rich applications that can be published to various platforms.

The advantages of the Adobe Animate CC application found in Chun (2017) are the camera feature that can be used as zooming and panning, the brush paint feature that can be used as a vector-based painter effect, support for HTML5 video, the existence of Adobe Typekit and Google Web Fonts to make text forms more attractive, publishing programs in various formats, and there is a Creative Cloud Library.

Zahroh, et al. (2019) in their research using the Adobe Animate CC application produced effective learning media to help the learning process, increase student motivation, and make it easier for students to understand the concept of learning material.

Audhiha, et al (2022) conducted research on the development of interactive multimedia using Adobe Animate on developing materials for elementary school level. This research design uses a 4D approach with three validators and 30 students as the subject of the product practicality test. The results showed that the interactive multimedia was valid (93.1%) and very practical (93.1%).

Amin, et al. (2021) developed interactive media on building materials using Adobe Animate at the elementary school level. The results show that the media is valid and practical with 90% of students' scores reach the KKM.

Rahayu, et al. (2021) developed an interactive media based on Adobe Animate for fourth grade elementary school students. The research method used is ADDIE with 5 stages. The results showed that the interactive media was declared feasible by the experts with an average value of 92%. The use of interactive media got a positive response by teachers getting 84% and positive responses from students getting 91%. Effective media is used by students with the results of increasing the average score of the pre-test and post-test getting a score of 85%.

All the previous studies result positively of using adobe animate for learning media. It leads the researchers to develop a learning media for university students of culinary department particularly Food Service subject. One of its learning objectives is to be able to do Table Manner properly at hotel. Table manners are the basic rules that apply at the dining table. This rule is usually applied at formal banquets (Yosanny, dkk. 2011). Table manners are the main rules that apply at the dining table such as ethics before eating food, the use of cutlery and ethics during the process of eating food (Corr, 2000).

Basically the table manner itself has many benefits for aspects of social life, especially among young executives. Table manners indirectly act as language when interacting at the dining table. In addition, the knowledge of table

manners is also a means for young executives to adjust in socializing with colleagues or business opponents (gunawan, 2014).

Presently before practicing Table Manner in a hotel, students were given procedures for implementing table manners through interactive media containing material and video clips that were downloaded via YouTube, however the contents were not standard for Table Manner. The results of studying Food Service in the last two years showed many grades that have not yet reached a very competent level. This can be seen from the percentage of final grades of 138 students, with A (very competent) 32%, B (competent) 49%, C (less competent) 17%, and E (very less competent) 2%.

Preliminary observation revealed the implementation of Table manner was less maximal. This can be seen from the implementation of the Table Manner where students made many mistakes when using chinaware, glassware, and silverware for the turn of the dish, leaning on chairs and dining tables, and chatting while eating. This phenomenon occurs because students cannot see the implementation directly. Through the theories given, students cannot imagine the actual implementation of the Table Manner. To solve these problems, the researchers innovate to develop a Table Manner interactive learning media with valid media and content. Hence, this study aims at developing table manner learning media using adobe animate CC.

METHODS AND MATERIALS

This study employed a research and development (R&D) study. The procedure to develop interactive learning media about Table Manner follows the 4D stages. The 4D model consists of 4 stages, namely; define, design, develop and disseminate. According to (Mulyatiningsih, 2016) states that the development of 4D model is a more compact development but in it already includes a complete development process. In the define stage have equivalence with analysis. At the development stage include validation, revision, implementation, and evaluation activities. 4D ends the activity through dissemination activities

This study is limited to develop stage. Define stage is to determine and define the need of Adobe Animate-based interactive learning media for either students or lecturers in learning process. Then, design is to determine the media format, topic, and content in systematic way and is shown through story board. In development stage, the media is created based on the design that has been done. Next, the feasibility measurement was done by two media experts and two material experts and acceptability test by 20 students.

The data were collected through interview and questionnaire. Interview was conducted to two lecturers of culinary study program of Universitas Negeri Medan to find out the need of Adobe Animate-based interactive learning

media. This study used two questionnaires. Firstly, closed-ended questionnaire is to analyze students' needs. Secondly, using questionnaire adapted from Sriadhi (2019) to measure the media validity by two media experts and two material experts. Also, acceptability test of the media was given to 20 students of culinary study program of Universitas Negeri Medan. The data were analyzed by using descriptive analysis to determine the need of media and to determine the media is feasible using data score conversion (Sriadhi, 2019) as below:

Table 1. The Data Score Conversion of Material and Media Domain

NO	SCORES	CATEGORY
1	1,00 - 2,49	Not feasible
2	2,50 - 3,32	Less feasible
3	3,33 - 4,16	Feasible
4	4,17 - 5,00	Very feasible

Table 2. The Data Score Conversion of Media Acceptability

NO	SCORES	CATEGORY
1	1,00 - 2,49	Very low acceptability
2	2,50 - 3,32	Adequate acceptability
3	3,33 - 4,16	High acceptability
4	4,17 - 5,00	Very high acceptability

RESULTS

Results

The define stage consisted of problem identification and need analysis which was used as a guide for media development. Based on the interview results, lecturers of Food Service subject used video taken from internet and PowerPoint slides as learning media. However, the video did not represent the learning objective of Table Manner including the order of dishes such as welcome drink, appetizer, soup, main course, dessert and coffee or tea. Thus, they kept finding other appropriate videos that meet the learning objectives to ease the students practicing. In addition, current media did not provide any evaluation to measure students' comprehension. Likewise, the questionnaire results revealed the students needed an interactive media of Table Manner which includes video, material and quiz. Therefore, this study developed Adobe Animate-based multimedia consisting of valid videos, materials, and quiz.

Design

The design stage began with selecting the suitable learning media, namely Adobe Animate-based multimedia.

Adobe Animate is a comprehensive application for creating interactive media-rich applications that can be published to various platforms (Chun, 2017). This learning media consisted of three major parts namely video, material, and quiz. In the very beginning, the media displayed university logo, topic, and buttons of product description, learning objective, table of content and quiz. Lecturers or students could run it by clicking the button, then the information would appear. When clicking (**Figure 1**) *Daftar Isi* or Table of Content, it will appear buttons of video and material of each topic.

Figure 1. Table of Content

The video consisted of a tutor who is doing table manner with additional voice-over to explain what the tutor is doing. Voice-over refers to the spoken text in audiovisual media.

Develop

The develop stage aims at producing an interactive multimedia that suits the needs and feasibility standards. The develop stage consisted of 5 activities: collecting material and questions related to learning objective, recording video, editing video, creating the media using Adobe Animate and feasibility measurement.

The video recording process was carried out at hotel. The tutor was a culinary lecturer. There were 10 scenes taken consisting of 1) Introducing table manner, 2) Welcome drink, 3) How to use glassware, 4) How to use napkin, 5) How to eat bread n butter, 6) Appetizer, 7) Soup, 8) Main Course, 9) Dessert, and 10) Tea or Coffee. The videos were edited and added voice-over so when watching the video, the students could understand more what the tutor is doing. After the videos were edited, then Adobe Animate was used to combine material, questions, and videos into interactive multimedia.

As shown in Figure 2, the front display consists of university logo, material topic, and four buttons linked to the next page. When the user clicks *Deskripsi* button, then figure 3. will appear. It also happens to *CPMK, Daftar Isi*, and *Quiz* buttons that will lead to figure 4, 5, and 8.

This interactive multimedia eases the user to find the material they want to read or they want to watch by clicking one of lists from *Daftar Isi* for example list *A. Pengertian Table Manner* and then figure 6 will appear. If the user clicks video button, then figure 7 will appear. Whenever the user wants to back to *Daftar Isi*, just clicking the orange middle button on bottom. As evaluation, this provides quiz as shown in figure 8 and the score in figure 9.

Figure 2. Front display

Figure 6. Video and material buttons

Figure 3. Description

Figure 7. Video

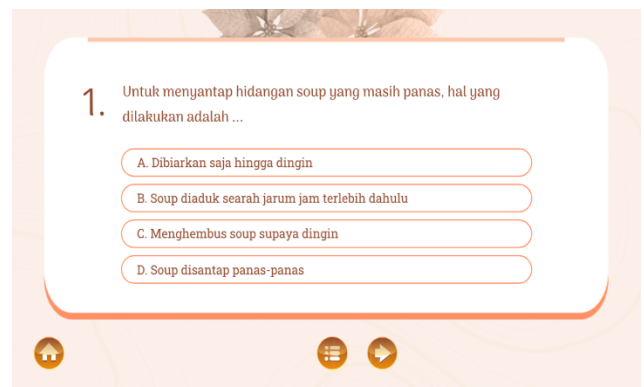**Figure 4. Learning objective**

Figure 8. Quiz

Figure 5. Table of Content

Figure 9. Quiz score

The media was then validated by two material experts and two media experts. Aspects assessed on material validation, namely: (1) Guidelines and information, (2) Multimedia Content/Material, and (3) Evaluation. The results of the assessment in the form of scores and suggestions are given on the assessment sheet. The results of the material expert validation are shown in table 3.

Table 3. The results of the feasibility assessment from the material experts

Aspect		Guidelines and information	Multimedia Content/ Material	Evaluation	Total	Mean	Category
Expert 1	Scores	14	51	30	95	4,52	Very feasible
	Items	3	11	7	21		
Expert 2	Scores	14	49	29	92	4,38	Very feasible
	Items	3	11	7	21		
Total score		28	100	66	194		
Mean		4,67	4,55	4,71	4,45		
Assessment Result		Very feasible	Very feasible	Very feasible	Very feasible		

In table 3, it is known that the average score given by expert 1 is 4.52 (very feasible), while that given by expert 2 is 4.38 (very feasible). The results of combining by expert 1 and expert 2 on each aspect by material experts, namely guidance and information with 4.67, aspects of multimedia material with 4.55 and evaluation aspects with 4.71. Based on these results, the validation of every aspect as well as overall from the material experts for this media material was declared very feasible.

The aspects assessed on media by two experts are (1) Guidelines and Information, (2) Program Performance, (3) Systematics, Aesthetics and Design Principles. The results of the media expert validation are shown in table 4.

Table 4. The results of the feasibility assessment from the media experts

Aspect		Guidelines and information	Program performance	Systematics, Aesthetics and Principles of Design	Total	Mean	Category
Expert 1	Scores	15	44	110	169	4,4	Very feasible
	Items	3	10	25	38		
Expert 2	Scores	14	43	108	165	4,3	Very feasible
	Items	3	10	25	38		
Scores		29	87	218	334		
Mean		4,8	4,3	4,3	4,4		
Assessment Result		Very feasible	Very feasible	Very feasible	Very feasible		

In table 4, it is known that the average score given by expert 1 was 4.4 (very feasible), while that given by expert 2 was 4.3 (very feasible). The results of the combination by experts 1 and 2 for each aspect by media experts, namely guidance and information is 4.8, aspects of program performance is 4.3 and systematics, aesthetics and design principles is 4.3. Based on these results, the validation of media in every aspect as well as overall from media experts was declared very feasible.

Acceptability assessment was carried out by 20 students. Aspects assessed include: (1) Guidelines and Information, (2) Multimedia Materials, (3) Evaluation, (4) Design and Facilities, and (5) Pedagogic Effects. The validation results are shown in table 5.

Table 5. The results of the acceptability assessment from the students

No.	Aspect	Total score	Total items	Mean	Category
1	Information Guidelines	363	20 x 4	4,52	Very high acceptability
2	Multimedia materials	1059	20 x 12	4,41	Very high acceptability
3	Evaluation	343	20 x 4	4,28	Very high acceptability
4	Design and facility	862	20 x 10	4,31	Very high acceptability
5	Pedagogic effect	481	20 x 5	4,81	Very high acceptability
	Result	3108	700	4,44	Very high acceptability

In table 5, it is known that the average score given by 20 students for each aspect is: (1) Guide and Information with 4.52, (2) Multimedia Materials with 4.41, (3) Evaluation with 4.28, (4) Design and Facilities with 4.31, and Pedagogical Effects with 4.81. The result of the overall assessment score for multimedia acceptability was 4.4 (very high acceptability).

DISCUSSIONS

The results of media validation were carried out by two media experts and two material experts. The results of the material expert stated that the material contained in the learning media was suitable for use with the average score

given by expert 1 was 4.52 (very feasible), while that given by expert 2 was 4.38 (very feasible). The results of combining expert 1 and expert 2 of each aspect by material experts are guidance and information of 4.67, aspects of multimedia material are 4.55 and evaluation aspects are 4.71.

Meanwhile, media experts stated that the media developed was suitable for use in learning. the average score given by expert 1 was 4.4 (very decent), while that given by expert 2 was 4.3 (very decent). The results of the combination of experts 1 and 2 for each aspect by media experts are guidance and information of 4.8, program performance aspects of 4.3 and systematics, aesthetics and design principles of 4.3.

The media trial was conducted by 20 students with the result that the overall score for multimedia acceptability was 4.4 (very high acceptability). From the results of these trials, the Adobe Animate Table Manner-Based Interactive Learning media for students is very feasible to use in learning.

From the results of the discussion above, it can be seen that interactive media can help in learning manners, equipped with material features, practices, and video tutorials. This is in line with the results of Yosanny's research (2011) which states that multimedia-based table manners learning applications can assist in learning table manners, equipped with material features, practice, and video tutorials and this learning application has implemented the five multimedia elements, so this application more interactive and attractive.

The research above is in line with the research results from Rifky Praditya Wirawan, Edy. Sulistiyo (2020) with the title Development Of Adobe Animate-Based Interactive Learning Media On Electricity And Electronic Basic Lessons. the results of this study obtained the value of the validity of the learning media up to 79.5% valid category. The value of the practicality of learning media is 86.11% in the Very Good category. while the value of the effectiveness of learning media is seen from the achievement in achieving values that meet the KKM with interactive learning media based on adobe animate.

In addition, the use of interactive media based on Adobe animation can increase students' independence in learning independently. this is confirmed by Febryanti (2021) in his research entitled Development of adobe animate-based mobile learning media to increase student learning independence in public relations subjects. the results of this study obtained student learning independence in the very high or very independent category with the acquisition of a percentage of 90.10%.

The development of interactive learning media based on Adobe Animate is stated as practical learning. this is in line with research from Audhiha, et al (2020) which states that the average practicality level is 86.96% in the very practical

category. Therefore, interactive multimedia based on Adobe Animate can be used and implemented in the learning process.

CONCLUSIONS

Adobe Animate-based interactive learning media about table manner was needed by students and lecturers according to their needs. The developed media consists of front display (university logo, material topic, and four buttons linked to the next page), materials, videos, and quiz. The feasibility test result of the developed media according to the material experts, media expert and students was respectively 4.45 (very feasible), 4.4 (very feasible), and 4.44 (very high acceptability). Based on the feasibility test, it is concluded Adobe Animate-based interactive learning media about table manner is very feasible to be used as a learning media.

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Author's Contribution

All authors discussed the result and contributed to from the start to final manuscript.

Conflict of Interest

All authors in this study declare that they have no competing interests to all parties.

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