DEVELOPMENT OF MICROLEARNING BASED LEARNING VIDEOS MATERIAL "HÀNZÌ BǏHUÀ" IN DÚ XIĚ YĪ COURSE

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Abstract: An This study aims to develop and produce products in the form of appropriate and valid microlearning-based learning videos to be used in learning "Hànzì bǐhuà" in class dú xiě yī. This type of research is a type of Research and Development (R&D) research using the DDD-E model which consists of the Decide, Design, Develop and Evaluation stages. The instrument used in this study was a validation questionnaire for material experts and media experts. The results obtained from this study indicate that this learning video obtains an average score of 91%. In addition, the results and notes from the validation serve as the basis for product revisions. Thus it can be concluded that the learning videos developed are feasible and valid to use in the learning process. Suggestions for this research are that future researchers can develop similar videos but with different materials so that variations in learning, especially learning videos, are more optimal.

Keywords: Learning Video, Microlearning, Mandarin Language

INTRODUCTION

Use this format for each section. Your full paper should be written in 4 – 5 pages. First-level headings should be written in capital letters. Leave a space between the heading and the first paragraph for that section.

Technological advances utilized in education are very supportive in improving the quality of learning.(Budiman, 2017) Budiman (2017) stated that the use of technology in the field of education needs to be done especially in learning activities. By utilizing advances in technology, computers, smartphones, and other information technology devices can be effective learning tools. Learning Mandarin in the Mandarin Language Education Study Program, State University of Malang (PSPBMUM) has utilized technology. This allows the learning process to be more flexible, not limited by space and time, and it is easier and faster to obtain information.

The learning process in the Mandarin Language Education Study Program, State University of Malang (PSPBMUM) has been carried out based on technology, one of which is e-learning. In e-learning based learning, the implementation can be done online, offline, or blended learning. (Golden Tritore, 2022) Tritore (2022) defines that blended learning is an integration of face-to-face learning with distance learning that combines various teaching strategies, various online learning resources and utilizes virtual strategies. To support the implementation of the blended learning learning method, appropriate media is needed so that the material can be conveyed optimally. However, unfortunately at this time students feel that the learning media used are less varied. In addition, when conducting a needs analysis, information was obtained that there were several learning sub-materials that were less specific

and clear in learning Chinese writing skills, so that this created difficulties for students in receiving the material.

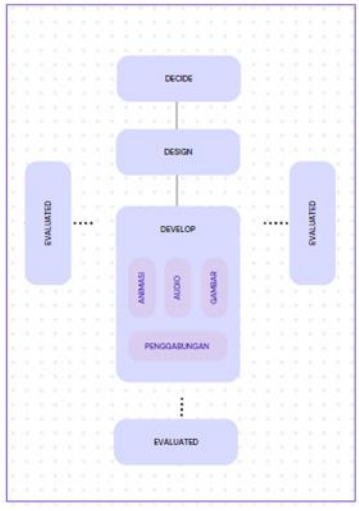
One of the media that can be utilized and effective in learning is video learning based on microlearning.(Golden Tritore, 2022)Tritore (2022) states that micro learning is a strategy for designing learning content into small and focused segments. Thus, the material can be presented more concisely, interestingly and on target. Furthermore, (A. Nugraha & Nestiyarum, 2021)Nugraha et al (2021) states that micro learning is a form of innovation in the learning process that can be utilized by lecturers. Meanwhile,(Noriska et al., 2021)Noriska (2021) states that micro learning is learning in which the material has been reduced and concentrated so that it makes it easier for students to learn the material.

One of the materials that was felt to be unclear was the material for the order and rules of Mandarin strokes in the listening-speaking 1 course. This is because Indonesian uses an alphabet that does not have too many rules, while Chinese has its own strokes and rules. According to (Mohammed et al., 2018)Mohammed et al.,(2018), Microlearning is very effective because it can make material more focused and easy to understand and remember for a long time. Furthermore, (Adnas, 2022)Adnas (2022) mentioned that micro learning has five advantages, namely it can be done in a short time, does not require a lot of individual effort, content is simple, looks attractive and is always updated, and is free and unofficial. By utilizing micro learning-based video learning media, it is expected to be a solution to the problems described above.

(Golden Tritore, 2022)Tritore (2022) conducted research with the title "Development of Learning Videos as Microlearning on the Topic of Class X High School Ion Bonds". The results of this study indicate that the learning videos are feasible to be tested in chemistry learning. The results of the validity test of the learning videos developed in this study were declared valid with a score of 3.88 in terms of content, a score of 3.58 in terms of language, and a score of 3.40 in terms of media. Meanwhile, (H. Nugraha et al., 2021)Nugraha etc (2021), Norika (2021) dan (Noriska et al., 2021)Noriska etc (2021) also conducted research on the development of microlearning in college courses. The results of this study indicate that the developed microlearning is valid and can be utilized in the learning process.

METHOD

Based on the previous explanation, the objective of this study was to develop microlearning-based learning videos on basic stroke material in reading and writing course one. Therefore, the team chose the development method (Research and Developmental). The development method is deemed suitable and appropriate for developing microlearning-based learning videos on the theme of basic Chinese strokes. This study uses the DDD-E development model (Tegeh, 2014), The following began the DDD-E development model.



In this study, the research team was the main instrument, therefore the presence of the researcher was absolutely necessary. However, to make it easier for the research team to collect the necessary information, the research team used supporting instruments in the form of media validation questionnaires and material validation questionnaires. These supporting instruments are used to collect data about product feasibility. Then the data was analyzed using the Miles and Huberman analysis technique. Based on the results obtained from the questionnaire, the team revised the videos that had been developed.

FINDINGS AND DISCUSSION

Based on the preliminary explanation, this research has a goal, namely to develop a microlearning-based learning video on the material "Hànzì bǐhuà" in the reading and writing 1 course. The material in this video is designed and adjusted to the Chinese Language Education Study Program curriculum which is equivalent to HSK 1-HSK 3. In addition, the material in the "Hànzì bǐhuà" video is packaged based on microlearning so that the material displayed is divided into the smallest parts. The material of "Hànzì bǐhuà" is divided into vocabulary, grammar, finding information from a text or reading and composing a simple essay according to the material of "Hànzì bǐhuà".

The prepared material was shown to the material expert to find out the level of validity. Based on the results of the material validation that has been carried out, a presentation of 93.7% was obtained. The validated aspects include material aspects and learning aspects. The following is a more detailed explanation of the aspects assessed.

Table 1. Results of the Material Expert Questionnaire

No	准则(Statement)	评价级别 (skor)				x	Xi	(%)
		STB	TB	B	SB			
		1	2	3	4			
教育的方面Aspects of Learning								
1	The material on the video is accompanied by examples of the material.				√	4	4	100%
2	There are opportunities for self-study for students				√	4	4	100%

3	There is a reflection at the end of the video				√	4	4	100%
资料的方面Material Aspects								
1	The material presented is in accordance with the curriculum and student needs				√	4	4	100%
2	The depth of concept of the material presented is in accordance with the concept of microlearning				√	4	4	100%
3	There is a reflection in the microlearning-based video			√		3	4	75%
4	The use of language to explain the material is easy to understand				√	4	4	100%
	Overall							
5	The stimulus provided is in accordance with the concept of microlearning and is sufficient to achieve the material objectives.			√		3	4	75%
	$\sum x$					22		
	$\sum xi$						24	
	P							93.7%

Description:

1 = Very bad
2 = Bad
3 = Good
4 = Very good

x = Score obtained
xi = Highest score
% = Validation percentage score

Material validation was carried out on Thursday, May 1, 2023. The instrument used by the research team to extract the necessary information is a questionnaire containing the level of feasibility of the material displayed in the video and the research team records the suggestions given as a basis for making product revisions. From the material validation that has been done, the microlearning-based video that has been developed gets a percentage of 93.7%. There are eight indicators assessed by material validators which are divided into two aspects, namely learning aspects (three indicators) and material aspects (five indicators). In the learning aspect, all of them received a score of 4 which is the maximum score, namely the material indicators in the video are accompanied by examples, there are opportunities for self-study and there is a reflection at the end of the video.

The material presented in the developed video has been accompanied by examples and reflections at the end of the video, it aims to make it easier for students to learn. This is in accordance with the opinion of Mohammed et al (2018) that microlearning can make the material taught easier to understand because the material presented is focused on small-scale material. In addition, through the developed learning video, it supports students to learn independently. Students can repeat the material displayed when they encounter difficulties or material that they do not understand. This is in accordance with the opinion of (Al-Shehri, 2021)Al Shehri (2021) that microlearning can be an easy-to-understand solution to learning problems.

In the second aspect, the material aspect contains five indicators. Three of them got the maximum score of 4, namely the suitability of the material, the depth of the material, and the readability of the material. The material presented in the video is adjusted to the Chinese Language Study Program curriculum and student needs. This is because microlearning is a method of learning with short content, and is in line with the needs of students ((Rafli & Adri, 2022). The depth of the concepts presented is also adapted to the concept of microlearning,

which is learning that presents the material on a small scale so that students find it easier to learn the material presented [10]. In addition to presenting the material presented on a small scale, microlearning also pays attention to the ease of delivering the material.

While the other two indicators scored 3, namely the indicator there is a reflection and the stimulus provided is appropriate to achieve the goal. The material expert explanation gives a score of 3 (three) on these two indicators because the reflection and stimulus provided are considered insufficient, so it is necessary to add a reflection at the end of the video and some stimulus. This aims to fulfill one of the advantages of microlearning according to (Adnas, 2022)Adnas (2022) This is because it does not require much effort from individuals to learn, which in turn helps students in learning and increases the effectiveness of the learning process. This is in accordance with the results of research (Sinaga et al., 2022)Sinaga (2022) that microlearning-based learning videos are effective in assisting the learning process. Meanwhile, (Susilana et al., 2022)Susilana (2022) added that microlearning can stimulate students' cognitive productivity.

Table 2. Results of Media Expert Questionnaire

No	Statement	Score				X	X_i	(%)
		STB	TB	B	SB			
		1	2	3	4			
1	Attractiveness of video display				√	4	4	100%
2	The attractiveness of the animation used in the video				√	4	4	100%
3	Clarity of writing and text in the video			√		3	4	75%
4	Attractiveness and suitability of images to the material				√	4	4	100%
5	Attractiveness of composition and color combination			√		3	4	75%
6	Quality of audio used				√	4	4	100%
7	Quality of images used				√	4	4	100%
8	Appropriateness of microlearning-based learning video design				√	4	4	100%
9	The attractiveness of the video Overall			√		3	4	75%
10	Systematic arrangement Overall			√		3	4	75%
	$\sum x$					36		
	$\sum xi$						40	
	P							90%

Description:

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x = Score obtained
xi = Highest sore
% = Score validation percentage result

In addition to conducting material validation, the team also conducted media validation. Media validation was conducted on Monday, May 15, 2023. At this stage the media validator gave an assessment of the ten indicators proposed. Based on the assessment that has been given, an average percentage value of 90% is obtained on the feasibility level of the learning video media display. This shows a fairly high value. This shows that in terms of appearance, the video developed is very feasible to use in learning. Six out of ten indicators

received maximum scores including indicators of the attractiveness of video and animation displays, image suitability, audio quality, video quality and video suitability with the concept of microlearning. This is in accordance with the opinion of (Adnas, 2022)Adnas (2022 who stated that one of the advantages of microlearning-based learning media is that the appearance is attractive and always updated.

While the other four indicators received a score of three with the notes given. These notes are used by the team to make improvements so that the resulting video can be maximized. The four indicators include 1) clarity of writing and text in the video. There is a hanzi writing that is blurry, so it is recommended to replace a clearer one. 2) there is a color composition in the video that needs to be changed. At first to show the steps of writing hanzi strokes, a transparent color is used, but it is recommended to change it to red. 3) the overall attractiveness of the video and 4) the overall systematics of the learning video.

Clarity of writing and color composition in video text are very important in presenting material through learning videos. One of the characteristics of video is high resolution, (Khairani et al., 2019)Khairani (2019) mentioned that the learning video display must have a high resolution so that it can be operated on various computer systems. The video product developed is also 2 minutes 30 seconds long, which is not too long or too short. This is in accordance with the opinion of (Nurfadhillah et al., 2021)Nurfadhillah (2021) that the duration of the learning video should not be too long, 3-5 minutes is enough. By utilizing microlearning-based learning video media, students can understand information more meaningfully (Agustini & Ngarti, 2020)Agustini (2020) outlines several reasons why learning videos should be used in the learning process, including active self-learning opportunities and explaining the material clearly.

CONCLUSION

Based on the results obtained and the results of the analysis that has been carried out, it can be concluded that the product in the form of a micro learning video based on Chinese basic stroke material in reading and writing courses is feasible and valid for use in the learning process. The level of feasibility obtained from material validation and media validation is 91%. These results are obtained from the average value of the two validations, namely material validation and media validation. In addition, based on suggestions from the two experts, the team has made revisions so that the resulting product is maximized. The researcher gave some suggestions to the next development team, first, it is expected to develop microlearning-based learning videos for other writing skills materials, considering that writing skills are the most recently learned skills so that they have their own difficulties in learning them. Second, researchers are expected to be able to make lighter learning videos so that it is easier when opened on a smartphone. While suggestions to users to prioritize using a laptop when playing this video.

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