Development of Learning Media for Chinese Language Based on Interactive Animation Videos on Directional Complement

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ABSTRACT

An era of very rapid technological development, the Industrial Revolution 4.0 encourages continuous innovations in teaching methods, materials, and media, which will have a significant impact on the educational process. The same applies to the opening of the PSPBM at the State University of Malang (UM) that aims to educate Indonesian people to communicate in Chinese. While the status of Chinese language is very important today, as the most widely spoken language in the world, its learning at the PSPBM UM has however faced several complicated problems, particularly with regard to the material Directional Complement. This subject has posed a problem not only for the students but also the lecturers. As a solution, this study developed an interactive animation using the Waterfall Systems Development Cycle (SDLC) method. The produced animation visualized the material Directional Complement and thus increasing students' comprehension of the subject at the level expected.

Keywords: Animation, media, Directional Complement

1. INTRODUCTION

In the era of technological development and the impact of the Covid-19 pandemic that hit the world, all countries including Indonesia are faced with the global competition of Industrial Revolution 4.0 In the field of technology development education, and global competition the Industrial Revolution 4.0 encourages continuous development of innovations both methods, materials, and teaching media so that the impact of such changes is very influential into the educational process. According to [1] the Covid 19 pandemic has affected education, teaching, research, and the dedication of universities. In the field of education and teaching, learning activities are currently conducted online. Similarly, [2] most people think that is of the reason why Chinese language seems difficult to learn. Such conditions are urgent to innovate and adapt to the use of available technologies to support the learning process [3].

The process of education and teaching at the college level for example at the State University of Malang (UM) is also affected by this so that UM also advanced innovation. The establish of Chinese Study Program (PSPBM) at Universitas Negeri Malang aims to enable Indonesians to communicate in Chinese. The position of

Chinese in this era is considered very important as stated by [4] who mentions that the number of native speakers of Chinese is 1.3 billion. It proves that Chinese is the most widely spoken language in the world. In terms of the needs of a Chinese-speaking worker every day there is always a significant increase. One thing that can be done by universities is by strengthening the role Chinese Study Program that produce graduates who are competent and able to meet the needs of the worker. The students of PSPBM UM has difficulties in learning Chinese which is very complicated. Students are required to be able to master every language skill including being faced with materials Directional Complement.

Based on the needs of competent Chinese speaking workers, the Chinese learners are highly recommended to study the material Directional Complement. The students of 2019 find it difficult to master the material. From the above problems, developers intend to develop interactive animations that can help learning problems. The importance of this medium in learning on the material Directional Complement is to visualize the existing material and improve the understanding of students so that the learning objectives in the material can be achieved.

2. METHOD

This product uses the Systems Development Cycle (SDLC) waterfall. There are six stages in the SDLC waterfall development model, namely analysis, design, implementation, testing, deployment, and maintenance.
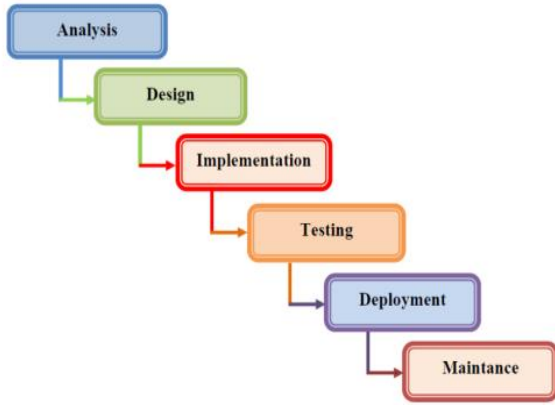

Figure 1 SDLC waterfall model development chart

Researchers used questionnaire instruments to capture the necessary information during the development stage. The questionnaire is filled by material experts and media experts. In addition, it is also used to find out how students respond to the module by analyzing quantitative-qualitative method data. Data analysis in this research and development is obtained from the development of digital animation media learning Chinese direction in the form of qualitative descriptive data and quantitative data. Qualitative data in this study in the form of comments and suggestions from media experts and material experts, while quantitative data on this development research in the form of percentages obtained from questionnaires that have been filled by media experts and material experts. The development of this media uses validation tests on learning media using the Arikunto product moment correlation formula [5] While on the data analysis of reliability using the formula KR21.

3. RESULTS AND DISCUSSION

Interactive animated video based Chinese learning media on this Directional Complement Material illustrates seven types and fourteen sub-structures. The seven types mentioned are "lái, shàng, xià, jìn, chū, huí, and guò" while the fourteen sub-structures are "shànglái, xiàlái, jìnlái, chūlái, huílái, guòlái, qǐlái, kāi lái, shàngqù, xiàqù, jìnqù, chūqù, huíqù and guòqù". The animated video is accompanied by simple illustrations and conversations to make it easier for learners to understand them. This media does not only perform illustrations of Directional Complement), but also an introduction formed in a video containing material related to Directional Complement. It aims to make the video more perfect in conveying materials Directional Complement so that students are easy to use it independently. Once this media is designed, the validation is required. At this validation stage, there are two experts involved, namely media expert and

material expert. Information, comments, advice from media experts and material experts are needed for interactive animated videos on materials Directional Complement to be a quality media and worth using, as well as a reference for researchers to improve the media before conducting trials to students.

3.1 Material Expert Validation Data

Validation of the material in the Interactive Animated Video on material Directional Complement is done to determine the feasibility of the content of the media material. Below is the data obtained from the analysis of the expert questionnaire material.

Table 1. Material Expert Validation Data

Aspects of the assessment	Percentage	Assessment criteria
Aspects of material clarity	97%	Very good
Aspects of pronunciation clarity	98%	Very good
Language Aspects	98%	Very good
Completeness of instructions	97%	Very good
Aspects of ease of use of media independently	98%	Very good

Overall the material and grammatical in the sentence are good and correct, the animation is also very interesting, in addition to the explanation of the material is also appropriate and complete.

Based on the results of the questionnaire from material experts and based on Arikunto's assessment criteria, digital animation can be concluded that Directional Complement is worth using in Learning Chinese. The statement is evidenced by the analysis of the results obtained based on the 5 criteria above consisting of aspects of material clarity, aspects of clarity of pronunciation, aspects of language, aspects of completeness of instructions, and aspects of ease of use of media independently are all appropriate and stated very good.

3.2 Media Expert Validation Data

The media validation stage Directional Complement aims to obtain data in the form of input on media shortages consisting of several indicators. From the data of the media expert validation questionnaire is then analyzed and continued for the basis in revising learning media. The validation aims to be able to improve the quality of The Animated Video Material Directional

Complement. As for the hope in the future media Video Animation Material Directional Complement can be used for learning Chinese. The data of media expert evaluation based on questionnaire data is displayed as follows:

Table 2. Media Expert Validation Data

Aspects of the assessment	Percentage	Assessment criteria
Display aspect	96%	Very good
Completeness of instructions	97%	Very good
Completeness of identity	98%	Very good
Content aspect	97%	Very good
Language aspect	97%	Very good

The display of animated video material Directional Complement is also very interesting, in addition Directional Complement the video is equipped with an explanation of the related material. Improvements need to be made by adding identical things with China to the video.

Based on the data in the poll of media experts above Arikunto assessment criteria shows that Video Directional Complement is very good and worth using as an interactive media in Chinese language learning. The statement is reinforced by the results obtained based on the above five criteria which all criteria state that Video Directional Complement is very good.

4. CONCLUSIONS AND SUGGESTION

The development of this media was based on the students' and teachers' needs. After conducting various stages according to the development models and concerning with the ideas of the material and media experts, the media is developed. Some minor obstacles during the process were also found at the end. Based on the data analysis, it can be concluded that the Video Directional Complement produced in this study is already worthy of use as a medium of learning Chinese. Video Directional Complement is considered suitable for use in online learning as well as used for self-learning.

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