The Development of Audio-Visual Learning Media Crawl Swimming Style based on Case-Method

Zulfan Heri[1], Puji Ratno[2], Nono Hardino[3]

{ zulfanheri@unimed.ac.id[1], pujiratno@unimed.ac.id[2], hardinoto@unimed.ac.id[3]}

Faculty of Sport Education, Universitas Negeri Medan[1,2,3]

Abstract. This study aims to develop an audio-visual learning media for crawl swimming style based on case-method PKO study program FIK UNIMED. Video is an audio-visual media capable of conveying information clearly through films, images and sound. This study used Research and Development (R&D) which adapted the 4D model. The instruments used are in the form of assessment sheets or learning media assessment questionnaires for material experts, media experts, case-method experts, lecturers, and students. Qualitative data analysis in the form of criticism and suggestions from media experts, material experts, lecturers and students. The results of the study showed four 4D steps. The results of the research analysis were to develop learning media using audio-visual crawl swimming style based on case-method in PKO study program FIK UNIMED. With a material expert was 3.06 which was included good category, and an assessment from media experts of 3.07, which meant in good category

Keywords: audio-visual media learning, crawl swimming style, based case-method

1 Introduction

Students' ability to master crawl swimming skills can be influenced by differences in intelligence and ability to master subject matter between one student and another. The determinant of student success in their academic field can not only be seen from the intelligence aspect but there are still other supporting factors that can make students achieve optimal results[1]. This condition is a determining factor in the success of learning crawl style swimming with good and correct technique, so it is necessary to apply case method learning in audio-visual form.

The case method is discussion-based participatory learning to solve cases or problems. The application of this method will hone and improve students' critical thinking skills to solve problems, communication skills, collaboration, and creativity. The case method is a type of problem-based learning. Students have the main role in solving problems, while lecturers act as facilitators whose job is to observe, ask questions direct discussions, ask questions, and observe various existing problems. The application of the case method requires learning media as a tool to help the teaching and learning process. The learning media is a tool that functions and can be used to convey learning messages[2].

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Basic swimming skills courses require theory to be delivered in practical sessions, meaning that theory and practice are dominantly one unit. The allocation of lecture time for swimming course 1 is 2 credits with the detailed hours being 100 minutes face-to-face, 100 minutes structured assignments, and 120 minutes independent study (*Permendikbud* No. 29 of 2014: article 16). The demands for learning outcomes in basic swimming skills courses do not only focus on swimming ability but also students mastering the domains of attitude (affective), cognitive, and psychomotor.

In mastering the crawl-style swimming skill, many students of the PKO FIK UNIMED study program have difficulty learning it and have not been able to master the crawl-style swimming technique properly and correctly. The fact is that when students carry out movement techniques, their body position when swimming is still far below the water surface, and their leg movements are still staggered and not consistent between their right and left legs. The arm movement has a technical error that is too open to the side when pulling the hand and breathing is done by lifting the head and turning forward.

Starting from this problem, the researcher provides an overview of swimming movement errors in the form of case method-based learning media. The learning video displays various swimming techniques and movements that should not be done during the learning process. In the end, students cannot master the correct basic crawl-style swimming technique. The learning messages presented can be factual, informative, educational, or instructional. Learning videos are a medium for conveying messages, including audio-visual media or listening media. Audio-visual media includes pure and impure audio-visuals, while video includes pure audio-visuals

2 Method

The use of learning media requires educators to adapt and develop ways of delivering lessons so that they can be effective and efficient. The media when understood in broad terms, are people, materials, or events that create conditions that enable others to acquire knowledge, skills, or attitudes.

Case method or case-based learning is better than other conventional learning methods, where the case method can improve critical thinking skills and class interaction. In the case learning method, students are challenged to analyze problems presented in the form of cases, make conclusions based on limited information, and make decisions on uncertainty, ambiguity, and conflicting issues that simulate the real world[4].

Mastery of skills is determined by many factors, including student factors as students, as well as teacher factors, infrastructure factors, environmental factors, learning strategy factors, and the application of learning media. The learning media includes tools that are physically used to convey the content of learning material, including books, tape recorders, cassettes, video cameras, video recorders, films, slides, photos, drawings, bar charts, television, and computers[5]. Learning media can also be said to be materials, tools/media, and methods/techniques used in teaching and learning activities to make this process.

Time and Place of Research

The research was conducted in the odd semester of the 2023-2024 academic year in the Sports Coaching Education study program, FIK UNIMED. The place where the research was carried out was at the UNIMED Swimming Pool, *Jl. Williem Iskandar Pasar V Medan Estate.*

Research Subjects

To carry out a needs analysis, 1 swimming expert, 1 media expert, and students of the UNIMED PKO FIK study program at UNIMED Academic Year 2022-2023 conducted observations of lecturers teaching basic swimming courses at the UNIMED Faculty of Sports Sciences.

Research methods

This research is research and development, meaning this research is product-oriented research. There are 4 development steps, namely the 4 D model[6].

Research procedure

This research was carried out to produce a product in the form of a Video Compact Disk (VCD) learning tutorial based on the case method of crawl style swimming for PKO FIK UNIMED students in 2023. Activities carried out included designing, compiling and creating tutorial learning media based on the case method of crawl style swimming based on needs analysis by collecting data from stakeholders, basic swimming lecturers from 3 (three) study programs at FIK UNIMED related to the curriculum (Syllabus and RPS) used so far. Making VCD products still pays attention to the sequence and depth of material and images.

Table 1. Details of Activities and Research Achievement Indicators

Activity	Implementation Technicques	Achievment Indicator
1. Analysis	1.1 Analysis of books according to the syllabus, RPS, learning outcomes, lecture obstacles so far 1.2 Analysis of stakeholder needs. 1.3. Analyze the needs of swimming experts	1.1. Prepare a VCD draft that matches the syllabus and RPS that have been analyzed. 1.2. Demands for graduate competency from stakeholders. 1.3. Formulation of graduate competencies based on sports experts
2. Re-design the VCD according to the syllabus and RPS	2.1. Create VCDs according to the syllabus and RPS based on stakeholder needs	2.1. VCD according to the Syllabus and RPS which are prepared based on stakeholder needs
3. Developing case-based swimming tutorial learning media Crawl Style Form Video Compact Disc VCD	3.1 Gather materials from stakeholders 3.2 Collecting materials from experts. 3.3 Collect material from peer lecturers (benchmark). 3.4 Prepare and print out the problem-based crawl style swimming independent learning module 3.5 Seminar independent learning module materials	3.1Appropriate and potential VCDs from stakeholders 3.2.VCD appropriate and potential based expert 3.3.Potential VCD based on Learn to Swim Technique 3.4. Potential VCDs are arranged according to depth based on a formula competence 3.5.A good VCD for courses based on seminar results
External I	eaching materials in the form of YouTube Compact Disk (VCD) Videos, Case-Based Tutorial Learning Media, Crawl Style Swimming Method for PKO FIK Unimed Students in 2023	

3 Results and Discussion

Data from the validity of the material expert consists of two aspects, namely the content aspect of the learning media, and the quality aspect of the audio-visual learning media, case method-based tutorial, and crawl style swimming for PKO UNIMED students in 2023. Based on the data obtained, the material expert assesses that the learning media product is in the form audio-visual.

The case method-based tutorial for crawl-style swimming for UNIMED PKO students in 2023 from the learning material expert was "good" with a result of 3.06. Meanwhile, media experts' assessment of the quality aspects of learning media is included in the "good" category with an average score of 3.07.

4 Conclusion

Based on the results of research regarding the development of audiovisual tutorial learning media based on the case method for crawl-style swimming for PKO UNIMED students in 2023, it can be concluded as follows:

1. The quality of the audio-visual tutorial based on the case method of crawl style swimming for PKO UNIMED students in 2023 based on the assessment of material experts is 3.06, including in the good category.
2. The quality of the audio-visual tutorial based on the case method of crawl style swimming for PKO UNIMED students in 2023 based on the assessment of media experts is 3.07, including in the good category.
3. The results of this research in the form of a crawl-style swimming learning VCD can contribute to the implementation of blended learning, especially in online learning.

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