The Development of Media Learning Audio-Visual Based on Case-Method Butterfly Stroke Swimming Style, PKO Study Program FIK Unimed 2024

Zulfan Heri[1], Puji Ratno[2], Haris Kurniawan[3], Nono Hardinoto[4], Yuita Yuliana[5]

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

Department of Sports Coaching Education, Faculty of Sports Education, Universitas Negeri Medan, Willem Iskandar Road / PSR V Medan Estate[1,3]. Department of Sports Coaching Education, Faculty of Sports Education, Universitas Negeri Medan, Willem Iskandar Road / PSR V Medan Estate[2,4,5]

Abstract. All students at FIK UNIMED are required to take swimming classes. This project aims to provide audio-visual learning materials for basic swimming skills courses for the PKO study program FIK UNIMED in 2024 based on the case method of butterfly swimming. Learning media are tools, tactics, or approaches utilized in the teaching and learning process to facilitate effective and efficient educational communication between lecturers and students. Applying case method-based learning in butterfly swimming instruction necessitates problem-solving skills from the pupils. through the process of watching instructional videos that have been methodically and formally constructed to satisfy scientific and technological advancements based on the current curriculum. The subjects of this research are; 2 lecturers who are material experts 1 experts in the media field 1 case methodology expert and students from the PKO FIK UNIMED study program in 2024. Research and Development (R&D), which modifies the 4D model, is used in this study. Assessment sheets or learning media assessment questionnaires are utilized as tools for students, lecturers/teachers, media specialists, and material experts. analysis of qualitative data through comments and recommendations from professors, students, media specialists, and material specialists. According to the research findings, there are four 4D steps: define, design, develop, and disseminate. With a material expert assessment, the research analysis findings were used to create an audio-visual use case method-based learning media for butterfly stroke swimming for PKO study program students in 2024 was 3.02 in the good category and an evaluation from media experts of 3.03 in the good category.

Keywords: Case-Method, Swimming Style, Butterfly Stroke

1 Introduction

According to Magdalena (2020), implementing basic swimming skills courses requires several strategies to meet learning objectives. Learning allows students to practice and achieve these outcomes. The changes that result from learning can manifest in various forms, such as knowledge, understanding, attitudes, behaviors, skills, abilities, responsiveness, acceptance, and

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other aspects of the individual learner.

Case Method is a case method that is included in the type of problem-based learning. Students play the main role in problem-solving activities faced by the problem. The lecturer is a facilitator, observing, asking questions, and guiding discussions while addressing issues arising during observation activities. Utilizing the case method in teaching requires effective learning media to enhance the educational process. Learning media are tools that function to convey educational messages (Sanaky & Hujair, 2013).

The basic swimming skills course is a compulsory course to be followed and studied by every student in the FIK UNIMED Sports Coaching Education study program, to be able to master the skills and knowledge, students are required to have cognitive abilities and motor skills in sports. The success of a student's sports learning is also determined by their interest in learning, intelligence, motivation, and educational background that they are following.

Some students in the FIK Unimed PKO study program struggle with learning, which has prevented them from accurately and completely mastering the butterfly swimming style. The truth is that the waist cannot be adjusted flexibly when pupils use the body position movement technique while swimming since the leg movement still depends on the knees moving. When both hands rise above the water's surface, the arm movement makes a technical error that makes it harder to lift the hands. The head remains parallel to the water's surface, and the view remains front.

Starting from this problem, the researcher uses case method-based learning materials to explain swimming movement inaccuracy. The instructional video demonstrates a number of incorrect swimming strokes and motions, ultimately making it impossible to grasp the fundamental butterfly swimming technique.

2 Related Research

Learning using the case method or using the case method to enhance classroom interaction and critical thinking abilities. The case learning approach requires students to evaluate topics that are presented as cases, make decisions based on incomplete knowledge, and deal with ambiguity, uncertainty, and contradictory issues that mimic real-world situations (Suparman, Atwi, 1994).

Numerous factors influence skill mastery, including those about students as learners, teachers (educators), infrastructure, the environment, learning strategies, and the use of learning media. Learning media, according to Gagne (1992), includes devices that are physically employed to transmit the information contained in learning materials, such as books, tape recorders, cassettes, video cameras, video recorders, films, slides, photos, pictures, bar charts, television, and computers.

Videos can show facts, describe procedures, clarify difficult ideas, impart skills, and change people's views. TVs, VCDs, sound slides, and movies are examples of tools used in audiovisuals. The outcomes of the creation of this learning medium in the form of a video will be displayed on a Video Compact Disc (VCD) once it is complete. Three categories of video sources can be distinguished: (1) moving images, sometimes called "movie images," which are captured by camcorders and have sound. Thus, videos are a common term for these moving pictures. A collection of bitmap-formatted pictures serves as the moving images. (2) still,

images, sometimes known as photos, are captured by digital cameras. These still photos can be turned into moving pictures or videos in the form of slides, often known as photo slides. (3) Unlike the two image sources above, this one image is not a part of the category of images taken from nature (natural image), which includes artificial images (cartoons, animation). The resulting images, which can be stationary, moving, or sound-based, are our creations.

3 Methodology

a. Time and Place of Research

The research time was conducted in the odd semester of the 2024--2025 academic year at the FIK UNIMED Sports Coaching Education study program. The place where the research was carried out was at the Unimed Swimming Pool, Jl. Williem Iskandar Pasar V Medan Estate.

b. Research Subjects

To conduct a needs analysis, observations were made of the lecturers teaching the basic swimming course at the Faculty of Sports Science, UNIMED, consisting of 1 swimming expert, 1 media expert, and students of the PKO FIK Unimed study program for the 2024-2025 Academic Year.

c. Research methods

This research is research and development, meaning that this research is product-oriented. Endang Mulyatiningsih (2012) explains 4 development steps, namely the 4 D model

d. Research procedure

For PKO FIK Unimed students in 2024, this research results in a product in the form of a Video Compact Disk (VCD) of tutorial learning based on the butterfly swimming case approach. The activities include gathering information from stakeholders and instructors of basic swimming courses from three (three) study programs at FIK Unimed in order to analyze needs and create learning materials based on the butterfly swimming case method that are relevant to the curriculum (Syllabus and RPS) currently in use. The order and depth of the content and visuals are still taken consideration when creating VCD goods. Following compilation, the data is presented at a seminar to create instructional materials in the form of VCDs as learning media based on cases of errors thatoccur when performing the butterfly swimming style.

Table 1. Details of Activities and Research Achievement Indicators

Activity	Implementation Techniques	Achievements Indicator
1. Need analysis	1.1. Analysis of books that are in accordance with the syllabus, RPS, learning outcomes, and obstacles to lectures so far 1.2. Analysis of needs from stakeholders. 1.3. Analysis of needs from swimming experts	1.1. Drafting a VCD that is in accordance with the syllabus and RPS that have been analyzed. 1.2. Demands for graduate competencies from stakeholders. 1.3. Formulation of graduate competencies based on

			sports experts
2.	Create VCD according to the syllabus and RPS based on stakeholder needs.	2.1. Creating VCD according to the syllabus and RPS based on stakeholder needs.	2.1. Create VCD according to the syllabus and RPS based on stakeholder needs.
3.	Developing learning media based on the Butterfly Swimming Case Method, namely	3.1 Collecting materials from stakeholders. 3.2 Collecting materials from experts. 3.3 Collecting materials from fellow lecturers (benchmark). 3.4 Compiling, and printing out independent learning modules for breaststroke swimming based on problems 3.5 Seminar on independent learning module materials	3.1. Appropriate and potential VCD from stakeholders 3.2. Appropriate and potential VCD based on experts 3.3. Potential VCD based on Swimming Learning Techniques 3.4. Potential VCD arranged according to depth based on competency formulation 3.5. Good VCD for courses based on seminar results
Source I	Media learning, such as Video Compact Disk (VCD) Youtube, is based on the *Case Method* butterfly stroke swimming style courses for the PKO study program FIK UNIMED 2024		

4 Research Result and Discussion

a. Researh Discussion

Two components form the data from the validity of the material expert: the quality of the audio-visual learning materials, case method-based tutorials, and butterfly-stroke swimming for PKO UNIMED students in 2024, as well as the content of the learning media. The material expert determines that the learning media product is in the form of audio-visual based on the data collected.

The material experts provide input related to the audio-visual tutorial learning material based on the butterfly swimming case method in the basic swimming skills course with an average assessment score of 3.02, which is included in the good category.

The media experts provide an assessment of the quality aspects of the audio-visual tutorial learning material based on the butterfly swimming case method in the basic swimming skills course with an overall average score of 3.03, which is included in the good category.

b. Discussion

The following is based on the findings of a study on the creation of audiovisual instructional learning materials for PKO UNIMED students in 2023 that use the case approach for swimming in the butterfly stroke:

1. According to material experts' evaluations, the audio-visual lesson for PKO UNIMED students in 2024 that used the case technique of butterfly stroke swimming has a quality rating of 3.02, falling into the good category.
2. According to media experts' evaluations, the audio-visual instruction for PKO UNIMED students in 2024 that used the case technique of butterfly stroke swimming has a quality rating of 3.03, falling into the good category.
3. The results of this research in the form of a butterfly stroke swimming learning VCD can contribute to the implementation of blended learning, especially in online learning.

5 Conclusion

According to the findings and discussion of this study, the material expert evaluated the audio-visual instructional learning materials in the basic swimming skills course using the butterfly swimming case technique. The average assessment score was 3.02, which is regarded as good. Additionally, the media experts gave the butterfly stroke swimming learning VCD an overall average score of 3.03, suggesting that it can support blended learning, especially in online learning.

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