The Practicality of D-MENBOLA
Interactive Learning Media in Higher Education

Ketut Chandra Adinata Kusuma[1,*] I Wayan Artanayasa[2] Adrianus I Wayan Ilia

Yuda Sukmana[3]

[1] *Sports Coaching Education Study Program, Universitas Pendidikan Ganesha, Singaraja, Indonesia*
[2] *Physical, Health and Recreation Education Study Program, Universitas Pendidikan Ganesha, Singaraja, Indonesia*
[3] *Technology Education Study Program, Universitas Pendidikan Ganesha, Singaraja, Indonesia*
[*]*Corresponding author. Email:* chandra.adinata@undiksha.ac.id

ABSTRACT

The utilization of interactive learning media is a demand in the distance learning period. The learning media developed must be easily used by students to achieve learning objectives. The objective of this research is to describe the practicality of D-MENBOLA, a football learning media for sports coaching education students. This research uses development research methods ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The practicality data collection technique uses a practicality test questionnaire filled out by 10 students. The data on the completed practicality test questionnaire instrument was then analysed quantitatively. As a result of the study's findings, practicality test, it is known that the developed D-MENBOLA belongs to the very practical category with an average percentage score of 88.33%. As a result, it can be concluded that D-MENBOLA as a practical learning media is used by students. It is hoped that further research can reveal the effectiveness of the use of D-MENBOLA on student learning outcomes.

Keywords: *D-MENBOLA, Interactive Learning Media, the Practicality.*

1. INTRODUCTION

The world of education always moves dynamically along with the situations and conditions that occur in all parts of the world. The COVID-19 pandemic has reduced access to educational facilities and even closed [1]. This situation implies that there is a shift in the face-to-face learning process to distance learning or online learning. Distance learning certainly requires interactive learning media to achieve these learning objectives [2]. Learning media has a crucial function as one of the components in the learning system [3]. Utilization of the development of information technology in education is a current demand [4]. The utilization of information technology as a learning medium aims to motivate students to learn to be more active and fun [5]. In addition, by incorporating information technology into the learning process, students' understanding has improved. [6][7].

The characteristics of learning media users, namely students, are considered in the use of the development of information technology. Students, especially students today, belong to generation z, which is a generation that lives in the digital era with easy access to everything using technological sophistication [8][9]. All activities to the learning process from generation Z are always supported and internet-based [10]. This affects personality development, even education and learning outcomes [11]. Thus, the use of technology in the learning process must be utilized appropriately to improve the quality of student learning and to achieve learning objectives [12][13].

Law of Republic of Indonesia Number 20 of 2013 Article 40 argues that educators must establish a meaningful, enjoyable, creative, dynamic, and dialogical educational environment. [14]. That is, educators must have creativity in designing and implementing the learning process, including in the manufacture as well as the usage of learning media. In line with that an educator must have competence in developing learning process, especially developing skills using innovative media [15]. These conditions must also be created in the learning of football coaching theory and practice at the Sports Coaching Education Study Program, Ganesha

University of Education. Learning in these courses must be carried out interactively and easily understood because learning theory and practice of football coaching is not only theoretical but includes understanding the concept of skills. For example, on the topic of the first touch, students are required to theoretically understand the concept of movement and then be able to implement it in the form of independent performance. So that, we need a learning media that contains material about the first touch theoretically accompanied by pictures, and videos accompanied by slow-motion movements from several angels to facilitate the understanding of its users.

Presently, many digital-based interactive learning media have been created and used in education, one of which is articulate storyline 3 based interactive learning media. Articulate storyline 3 is an application supported by simple smart with interactive tutorial procedures to help users format CDs, web personal, and word processing, through templates published both offline and online [16]. Compared to Microsoft PowerPoint as a medium for presentations, Articulate Storyline 3 can produce comprehensive and creative presentations and offers a lot of convenience in making learning objects in the form of simulations, quizzes, screen recordings to many other e-learning objects that allow interaction between lecturers, objects, and students [17].

Based on these advantages, the researchers developed an interactive media for learning based on articulate storyline 3 for lecturing theory and practice of football coaching, which was named D-MENBOLA. However, before being used in the learning process, the developed D-MENBOLA must be tested for quality. The quality of learning development products must meet three criteria, one of which is that learning products must be practical [18]. The product developed is said to be practical if the practitioner states that the product that has been developed can be applied in the field and the level of product implementation is included in the "good" category [19]. Therefore, researchers are interested in conducting a practical test of D-MENBOLA in the theory and practice of football coaching. The purpose of this study is to describe the practicality of D-MENBOLA that has been developed.

2. METHOD

This form of the research is research and development that aims to design, develop, create products, test products to produce products [20]. The design of this study refers to the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model developed by Branch [21]. In this study, just until the stage of development, namely knowing the level of practicality of the product being developed. More clearly the stages in this research are explained as follows.

2.1. Analysis Stage

The first stage in this research is analysis. The process of observing the process of lecturing football coaching theory and practice is the first step in this stage. So, the results of these observations produce information related to performance gap analysis, course characteristics, student/user characteristics, curriculum analysis and learning resource analysis. The results of this analysis stage are used as guidelines in determining plans and solutions to the problems found.

2.2 Design Stage

This learning media's design stage begins with making the design of the developed learning media. The first step in designing this learning media is making a navigation flowchart for the use of learning media. This flowchart serves to facilitate the use of learning media by users. After making the flowchart, it is followed by making a prototype of the developed learning media.

2.3 Development Stage

This stage entails the development of interactive multimedia learning media based on data sources that have been previously analysed and designed. After the media creation is complete, the media is tested for feasibility/validation by experts in the media and also in the field of materials before the learning media is put to the test by users. After being assessed by the validator and meeting the valid criteria, the learning media was put to the test in small groups. The purpose of the experiments was to identify the level of applicability of learning media.

Table 1. Practical Category of Learning Media

No.	Range Percentage	Category	Description
1	81,00% - 100%	Very Practical	Can be used without revision
2	61,00% - 80,00%	Practical	Can be used with minor revisions
3	41,00% - 60,00%	Practical enough	Recommended not to use
4	21,00% - 40,00%	Not Practical	Cannot be used
5	00,00% - 20,00%	Very Impractical	Cannot be used

This type of research data is quantitative data acquired from student questionnaires. The outcomes of the practicality questionnaire that had been filled out by the students were then analyzed and converted based on Table 1 [22].

3. RESULTS AND DISCUSSION

The results of this study have gone through the stages of the ADDIE model, although only at the development stage. The following describes the results of each of these stages.
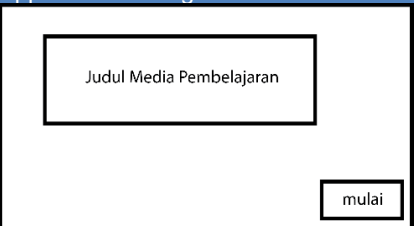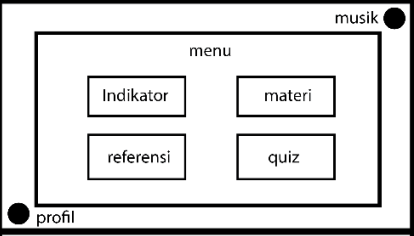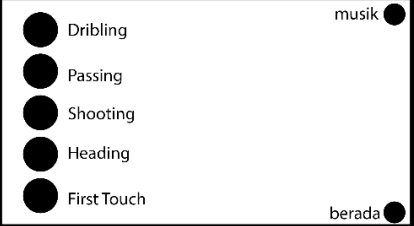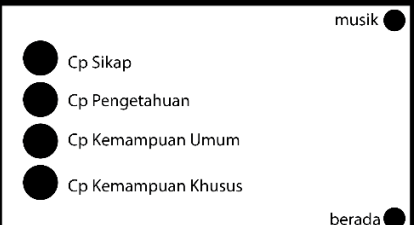
3.1 Analysis Stage

This stage is a description of the results of observations on the learning process in the theory and practice of football coaching at the Sports Coaching Education Study Program, Ganesha University of Education. The gap that arises is the unavailability of learning media that can support the efforts of the online learning process on the characteristics of subjects that are dominant in learning movement or skills. This is also included in the results of the analysis of course characteristics. So, it was decided to choose a learning resource to be designed, namely the development of interactive learning media based on articulate storyline 3.

3.2 Design Stage

After determining the media to be developed, the following stage is to produce learning media that begins with making a navigation flowchart. After making this flowchart, proceed with making a prototype of the developed learning media. Components, navigation, and display design in the prototype are made in a straightforward, clear, and systematic way to make it easier to implement the developed learning media. The prototype concept of the developed football learning media can be seen in Table 2.

Table 2. Concept of Learning Media Prototype Developed

Description	Component	Appearance Design
Initial View	a) Navigation buttons: start b) Media title	
Menu Page	a) Navigation buttons: voice, exit, hint b) Menu button; materials, learning achievement indicators, references, evaluations	
Material Page	a) Navigation buttons: home, sound b) Material buttons: dribbling, shooting, passing, first touch, heading	
Learning Outcome Indicator Page	a) Navigation buttons: home, sound c) Material button: CP. Knowledge, CP. Attitude, CP. General Skills, CP. Special skill	

Description	Component	Appearance Design
Evaluation Page	a) Navigation buttons: next, back, play, pause. b) Case study videos c) Question b) Answer options	

3.3 Development Stage

This development stage is the stage where a product has been in the form of prototype 1. Prototype 1 is named D-MENBOLA or Digitalization of Football Learning Media. The making of D-MENBOLA uses the articulate storyline 3 as a layout and quiz maker application, and Adobe Premiere Pro is used as a learning video editing application and case studies. The developed D-MENBOLA contains several aspects such as instructions for use, learning outcomes, textual and audio-visual learning materials, as well as evaluation in the type of quizzes to test students' comprehension of the material provided in the form of case study videos. The display of D-MENBOLA after being validated and revised based on the input of the media validator can be observe in Figure 1 – Figure 5. This D-MENBOLA has been confirmed by media and material experts with a total average score of 3.78 which is categorized as very valid or very worthy. The media validator consists of two lecturers from the Educational Technology Study Program, Ganesha University of Education. The football learning material was validated by a lecturer of the Physical Education and Sports Science Study Program, Ganesha University of Education.
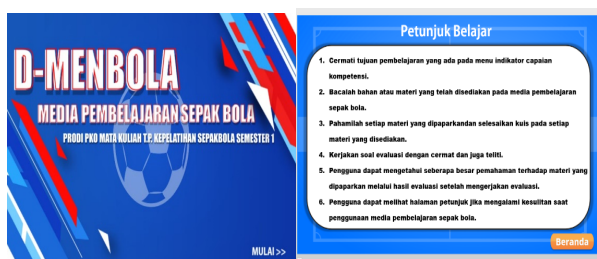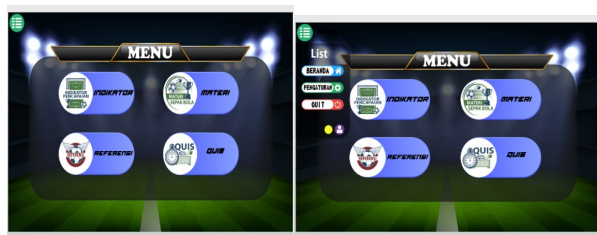

Figure 1 Initial Display of D-MENBOLA

Figure 2 Display of D-MENBOLA Menu
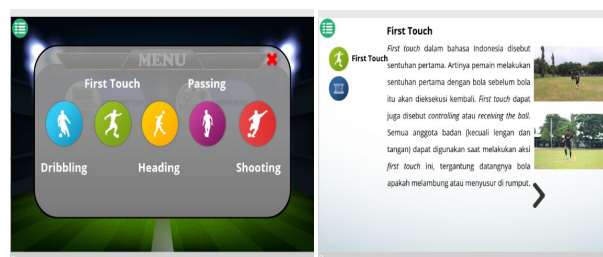

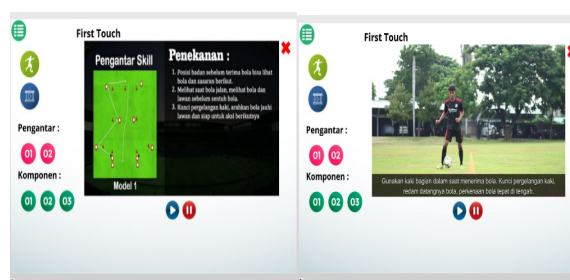**Figure 3** Display of Material Menu (Textual)

Figure 4 Material Display (Audio Visual)

Figure 5 Evaluation Display (Quiz)

After D-MENBOLA is declared valid or feasible, then the media is tested in small groups to determine the level of practicality. The practicality data was obtained from the results of a small group questionnaire, namely 10 students from the Sports Coaching Education Study Program, Ganesha Education University. There are 15 statement components in the questionnaire related to practicality that students must respond to. The 15 components include ease of opening and closing learning media, instructions for using media, the layout of navigation and menu buttons as well as previous and next buttons, ease of accessing images or videos, practice questions that are easy to understand and use,

and direct feedback from practice questions so that the results direct learning can be seen. All of these components are for the practicality test, namely to determine the ease of users in using the D-MENBOLA learning media. The following are the results of the practicality test of the D-MENBOLA media shown in table 3.

Looking at the results in table 3, the results of the D-MENBOLA practicality test get a total score of 530.

While the average practicality value reaches 88.33% with a very practical category, as a result of this, the media created can be utilised in the learning process of football coaching theory and practice. This practicality test must be carried out to determine whether or not this media is easy to use by users. One of the factors in analysing the needs of media users in the form of software is that it must be easy to use [23]. Learning media that is easy to apply will make learning easy for students[24][25].

Table 3. D-MENBOLA Practicality Test Results

Student	Total Score Obtained	%
1	52	86,67
2	46	76,7
3	57	95
4	48	80
5	58	96,67
6	54	90
7	48	80
8	57	95
9	57	95
10	53	88,33
Total	530	883,3

4. CONCLUSION

The level of practicality of D-MENBOLA as a football learning media based on articulate storyline 3 is very practical. This is derived from the results of a practicality test done on 10 students of the Sports Coaching Education Study Program, Ganesha University of Education. It means, students can readily use this learning media as users. During this online learning process, it is believed that this learning media would assist students in mastering the information in football coaching theory and practice. This research is limited to the practicality of the media, so further research is necessary to determine the impact with this media on student learning results.

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