

## **DEVELOPMENT OF INTERACTIVE TEACHING MATERIALS FOR DHARMA ANANDA INDONESIA SCHOOL: AN APPLICATION OF THE ADDIE MODEL**

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### **Abstract**

The purpose of writing this article is to explain the development of interactive teaching material models that are used as references and standard models that characterize the Indonesian Dharma Ananda School Subject Book Subject Matter. Dharma Ananda Indonesia School is a target school of Universitas Terbuka (UT). The development of this interactive teaching material uses the ADDIE model. The first step is the needs analysis stage by identifying the strengths and weaknesses of Dharma Karya UT Junior High School as a model of excellence. UT wants to make its target schools from classical, face-to-face ordinary schools, using general package books and ministerial recommendations for students towards an international standard school of excellence and will become a school that can serve all children in all corners of Indonesia. The second step is to develop an Interactive Teaching Material Development Design, which is useful as a blueprint for developing complete interactive teaching materials. This answers the need for improvements to all components of the school. One of the most crucial things in the field of education is teaching materials that are according to standards, according to student needs, easy to understand, easily accessible, can be studied individually by students anywhere, anytime without constraints. Then the third step, developing a prototype of Interactive Teaching Materials. In addition, on the other hand, there is a need for schools to increase the capacity of schoolteachers at the junior high school level in order to facilitate the learning process in the form of interactive teaching materials. The fourth step is testing the prototype as an implementation step, so that the quality of learning is in accordance with the expected learning outcomes. Finally, the fifth step is to evaluate the results of implementation. The evaluation here is used for improvement.

Keywords: ADDIE model, interactive teaching material model development

### **1 INTRODUCTION**

Building a nation through education requires continuity. Education is defined as an effort to improve the quality of life through discipline, social and moral values. As stated in Law No. 20 of 2003 article 1 paragraph 1 which states that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation, and state (Indonesia). The development of students' potential is one of the important efforts of the entire learning process. Schools that accommodate learning activities as much as possible can facilitate every learning activity in schools that suit the needs of students and teachers. The use of teaching materials to

deliver school subject matter generally still uses textbooks available outside of school or utilizes schoolbooks published by the Ministry of Education (Directorate of Junior High Schools).

To realize the quality of students, it is necessary to improve the quality of teaching materials used according to student needs. As a tertiary institution, the Open University has a duty and service to the community through teaching and service. One of the leading private schools at the Dharma Karya UT Junior High School level is a school that is a target of the Open University. This school officially organized its educational activities in 1994. One of the achievements obtained is to become the 2018 National Level Adiwiyata School (Dharmakarya UT).

Dharma Ananda Indonesia Junior High School, which is one of the leading schools under the auspices of the Dharma Ananda Indonesia Foundation, has received recognition from the National Accreditation Board, namely A accreditation (Dharmakarya UT). The implementation of learning activities using the 2013 curriculum and starting to implement the independent curriculum in 2023-2024 with diverse intracurricular learning, so it is considered necessary for teachers to have the ability to develop teaching tools that suit the needs and interests of students. The digital and interactive era no longer requires teachers to have the ability and skills to develop learning materials that can be accessed by students independently and are not limited to time and place as learning occurred during the Covid-19 period. But teachers in the field of study do not fully have equal skills to be able to develop comprehensive online based and interactive learning materials and implement an independent curriculum in accordance with the needs of junior high school students at the Dharma Ananda Indonesia Foundation.

Thus, in this article, the author raises a problem, namely.

1. Do the teachers at SMP Dharma Karya Ananda Indonesia currently have an overview of the development of interactive teaching materials?
2. What is the teaching material model that suits the needs of Dharma Karya Ananda Indonesia Junior High School?

## **2 METHODOLOGY**

Based on the facts about the teaching materials that want to be developed to meet the needs of students in Dharma Karya UT Junior High School (SMP), it is necessary to have an equal

perception of the development of interactive teaching materials specifically for students. This activity is the first step to determine the next step in efforts to develop teaching material models and management of teaching materials that will be developed by teachers at SMP Dharma Karya UT. Digital teaching materials are set to be designed as digital learning tools for students at SMP Dharma Karya UT, namely interactive teaching materials developed through the ADDIE model approach, namely Analysis, Design, Development, Implementation, Evaluation and are the stages in this model. As revealed by Pribadi (2010: 125) that the five main phases consist of needs analysis to determine the solution to the problem, then design, then proceed with development or *development*, then carry out implementation and evaluate as the final stage.

Branch (2009: 2) also explained the ADDIE model which is an acronym for *Analyze*, *Design*, *Develop*, *Implementation*, and *Evaluate*. ADDIE is a product development concept. ADDIE concepts are applied to build performance-based learning. The application of ADDIE believes that learning must be student-centered, innovative, authentic, and inspiring. The concept of systematic product development has existed since the formation of social communities. Creating products using the ADDIE process remains one of the most effective tools today. Because ADDIE is a process that serves as a guiding framework for complex situations, it is ideal for developing educational products and other learning resources.

### **3 FINDINGS AND DISCUSSION**

After conducting the analysis, then the learning program by applying the ADDIE design by considering the needs of students and learning. This model can be applied to design digital-based learning media curriculum development activities through the stages of learning needs analysis, the stage of designing the development of interactive-based learning teaching materials, the stage of developing online and interactive-based learning models, and the stages of implementing an independent curriculum according to the direction of the ministry of education and culture. Meanwhile, for teacher involvement in the development of interactive teaching materials, teachers, especially at SMP Dharma Karya UT, are expected to be equipped with insights and skills through interactive teaching material development training.

#### **3.1 Analysed Stage**

Starting the initial step of the ADDIE teaching material development model, the author identifies the value of strengths and weaknesses of Dharma Ananda Indonesia School in

particular the Junior High School level as an excellent school model. Sekolah Dharma Karya UT is currently the main focus and part of the Dharma Ananda Indonesia Foundation target schools from classical, face-to-face ordinary schools, using printed package textbooks issued by the ministry for students to international standard excellent schools. With the hope that in the future this school will become a school that can serve all children in all corners of Indonesia through distance education. In the past few years, schools have implemented Curriculum 13 and gathered teachers to implement Curriculum Merdeka. Books that become a reference for junior high school learning by adapting textbook materials and simple learning media according to the development of subject teachers. Based on this, the author then conducted a study of curriculum package book 13 used by schools and reviewed the *e-books* contained in the Book Center developed by the Education Standards, Curriculum, and Assessment Agency <https://buku.kemdikbud.go.id/> the Ministry of Education, Culture, Research, and Technology. In this way, the author gains insight and coverage regarding the development of interactive teaching materials to support the learning process according to the needs of SMP Dharma Karya UT. To equip teachers in terms of developing learning materials for students, it is expected that there will be special training for teachers at Dharma Ananda Indonesia Junior High School. To develop interactive teaching materials that suit the learning needs and junior high school students by elaborating teacher handbooks used in the learning process of each subject, to then be developed into learning tools that can be used to achieve learning objectives. To be able to develop teaching materials and equip students to achieve learning objectives with components that contain aspects of competence, content, and variety as the efforts of Sekolah Dharma Ananda Indonesia to implement an independent curriculum. The teaching materials to be developed will be prototypes with the support of teachers who fill in the learning content. To equip teachers in terms of developing learning materials for students, it is expected that there will be special training for teachers at Dharma Ananda Indonesia junior high school. Some of the training that can be provided include elaborating teacher handbooks in teaching according to the field of study with training stages themed BA-SDAI Development Design, BA-SDAI Development, BA-SDAI writing techniques, Utilization of OER for BA-SDAI, Development and utilization of multimedia in BA-SDAI, and Assessment in BA-SDAI

### **3.2 Design Stage**

In this second stage, based on the results of the needs analysis, an Interactive Teaching Material Development Design was developed. This design is an Instructional Design for developers in

the next stage, namely the Development Stage as Stage 3 which will produce a Prototype. The Interactive Teaching Material Development Design consists of 1) Competency Maps for each Subject; 2) Learning Plans for each Subject, as a Blueprint for the development of Interactive Teaching Materials; 3) Multimedia utilization map; and 4) Learning Scenarios for Digital Teaching Materials. Later in the third stage, the team began to develop prototypes of Interactive Teaching Materials. On the other hand, there is a need for schools to increase the capacity of schoolteachers at the Junior High School level in order to facilitate the learning process in the form of interactive teaching materials. After making the design of teaching materials in accordance with the results of the elaboration of the teaching material model, the author prepares a template or design pattern that has a structure or systematics through the Operational Curriculum design approach in the Education Unit according to the context of junior high school education. Some learning tools such as learning outcomes are set to be elements of interactive teaching materials mapped based on student development. The learning materials that will be laid out will be accompanied by various types of learning media to accommodate varied student learning styles. Learning media in the form of attractive and interactive multimedia is expected to be able to provide a more meaningful student learning experience. Teaching materials with a variety of interactive media will bridge communication between teachers and students by applying the concepts of self-contained, self-instruction and self-explanatory.

### **3.3 Development Stage**

The third stage is to develop an Interactive Teaching Material Development Design, which is useful as a blueprint for developing interactive teaching materials that are comprehensive and appropriate to the learning context at SMP Dharma Ananda Indonesia. This is expected to answer the needs regarding the need or not to improve all components of school learning. One of the most crucial things in the field of education is teaching materials that are according to standards, according to student needs, easy to understand, easily accessible, and can be studied individually by students anywhere, anytime. To develop interactive teaching materials that suit the learning needs and junior high school students by elaborating teacher handbooks used in the learning process of each subject, to then be developed into learning tools that can be used to achieve learning objectives. To be able to develop teaching materials and equip students to achieve learning objectives with components that contain aspects of competence, content, and variety as the efforts of Sekolah Dharma Ananda Indonesia to implement an independent

curriculum. The teaching materials to be developed will be prototypes with the support of teachers who fill in the learning content. To equip teachers in terms of developing learning materials for students, it is expected that there will be special training for teachers at Dharma Karya UT Junior High School.

### **3.4 Implementation Stage**

The fourth stage will test the prototype as an implementation step, so that the quality of learning is in accordance with the expected learning outcomes. To be able to find out the results of this interactive teaching material trial, a trial instrument will be developed that will be used by teachers who will develop teaching materials as samples, then trials are also carried out on small groups consisting of a number of students as an evaluation of the use of teaching materials, then improved as needed and ready to be used by schools to measure student learning success.

### **3.5 Evaluation Stage**

The final stage of this model is the fifth evaluation stage which is an evaluation of the results of implementation. The evaluation here is used for prototype improvements that will be tested again to teachers and students in real time. The author intends to develop an assessment of learning outcomes tests on a small group of students after previously carried out on-desk evaluation by experts, material experts and media experts to then make conclusions and improvements to the prototype. In the results of improvement, learning outcome instruments such as pretests and posttest were developed as a series of learning processes using interactive teaching materials.

## **4 CONCLUSION**

The needs of Dharma Karya Junior High School under the auspices of the Dharma Ananda Indonesia Foundation which is a target school of the Open University for Interactive Teaching Materials, of course, considering that learning in the current era requires interaction and activeness of its students in the learning process. One of them is by providing interactive teaching materials. This is done so that the learning atmosphere becomes more interesting and meaningful, and not one-way. Therefore, the development of interactive teaching material models that are used as references and standard models that characterize the Dharma Ananda

Indonesia School Subject Book was carried out. Dharma Ananda School Indonesia The development of this interactive teaching material uses the ADDIE model.

Consideration of using the ADDIE model because this model is dynamic to respond to changes in variables in the learning space. ADDIE is systematic because it establishes rules and procedures, as well as protocols for establishing rules and procedures, and helps shape a responsible approach to designing instructions. ADDIE organizes, guides, automates, replicates. ADDIE is systemic because all components of the process respond to any stimulus: or at least have the opportunity to respond to any stimulus. ADDIE is a validation process because it verifies all products and procedures related to the development of guided learning and adds credibility through procedures that are analytical, evaluative, and philosophical. A valid instructional design paradigm is goal oriented. However, different learning objectives require different instructional strategies.

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