



Development of Project Based-Learning English Learning Materials for High School Students

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Abstract

This research aims to develop English language learning materials based on project based learning for class XI high school students at SMAS Adhyaksa 1 Jambi City. The teaching materials and practice assignments presented are designed for English subjects so that they are easy for students to understand and the context is adapted to students' daily lives. Through this approach, it is hoped that students will be able to increase their cognitive and psychomotor levels in English learning situations. Students are focused on how to observe and understand the material presented. The development model uses the ADDIE model (analysis, design, develop, implementation, and evaluation). The development procedures carried out follow the ADDIE design, these steps are: 1. Analysis; 2. Design; 3. Development; 4. Implementation; 5. Evaluation. The overall research results show that the learning material has a fairly good category. According to educational design experts, this learning material is effective, so it is suitable for use as English learning material. Meanwhile, subject matter experts gave a good assessment of the developed learning material. The learning materials developed by showing existing criteria and procedures are quite effective. During the field test, teachers and students gave a fairly good assessment of the development of this learning material.

Keywords: Learning Materials; Learning Media; English

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INTRODUCTION

English is an international language used by many people throughout the world and is an everyday language in several countries (Kustanti & Prihmayadi, 2017), however, using English is the easiest way to communicate with other people from various countries. about several aspects of human life such as technology, economics, social and politics (Juriana, 2017).

English is a foreign language, and foreign language learning is related to pupils or students where they are required to learn English using 4 (four) basic abilities, namely; listening, speaking, reading and writing (Puspitasari, 2013). We use these 4 learning basics so that students can understand speaking in English through listening and reading English and use them to be able to communicate based on understanding, needs and desires in speaking and writing English. By using knowledge about reading skills, we can better understand and understand so that we can achieve our desires in learning English.

There are several ways to organize sentences in English writing. One of them is recount text.

Recount text is a form of text to tell an event with the aim of providing the information obtained or entertaining (Suhaimi, 2016). Literally, recount means "telling". So recount text can be interpreted as "Text that tells". If we refer to the information in school books, recount text is a text that tells the reader about one story, action or activity. Its goal is to entertain or inform the reader. The purpose of recount text is to entertain or inform readers (Hidayat, 2017). In recount text, the sentences are usually arranged based on time or based on the chronology of events. One event occurs and then another event follows, and these events are retold at the same time.

The problem that is often encountered is that students in writing English cannot understand parts of the story and when retelling it, the story is not relevant to the topic of the story, and their ideas are not clear, and also the language sentences are not neatly arranged. The second problem is that there are many errors in translation of English vocabulary, grammar and spelling. Another problem is that students have no motivation and are not interested in doing writing assignments because these assignments are not fun for students. Usually students are given questions to write these sentences in several paragraphs without being given any instructions, making it difficult for students to express story ideas in their writing. In addition, students have difficulty retelling their experiences. This is because writing is difficult for students because students do not have sufficient skills in understanding English vocabulary, spelling and grammar.

Various active learning research models have been applied in learning such as the PBL model, discovery learning, PjBL and others. From literature searches, the PBL model is often used to improve learning outcomes and processes (Farisi et al., 2017). Carvalho and Dourado (2013) prove that the PBL model is quite effective in science learning. Meanwhile, Tamim, S. R, & Grant, M. M (2013), used PBL as research where the aim was to develop teachers' abilities in implementing PJBL.

Project based learning models have been proven to help students to better understand what they have learned and to retell the information. This can also increase students' ability to apply what they have learned and involve students in learning experiences. Students are interested in the project and motivated to study it and learn the information they need to complete the project.

The aim of the project-based learning model is to enable students to discover several events that occur in the real world and also to discover strengths or abilities within themselves (Saputra, 2014). For example, a student can study the facts about entrepreneurship and he will have an academic understanding of the subject, but if that same student completes a project where he starts and manages his own business, then he has real life skills and he can bring those skills to bear. and can be used in adult life. This is not to say that facts are not important. Having an understanding of a subject is significant and our students will be provided with these facts before being asked to complete projects or directed to where they can find such information as is required or required.

In designing learning, starting from the material, student needs and context (Martini et al, 2015). There is a relationship between technology, materials, and pedagogy, so the combination of these three interactions creates strength and attraction to foster student-centered learning. Agree with Shambaugh, Mayer, Richard. E (2009;4) stated that using learning media allows students to process information visually and verbally utilizing the potential of students' brains in learning. Learning materials that suit students' needs will make learning effective (Manizar, 2015). Where the development is based on two points of view, namely a technology-centered approach and a student-centered approach.

More details Mayer, Richard. E (2009; 4) emphasizes that the development of learning materials cannot be separated from 5 design principles, namely redundancy, personality, interaction, coherence and aesthetics. Based on an analysis of the multimedia design principles that students want, namely interaction and aesthetics. Interaction is one step in involving students with interactive learning, while aesthetics is an attraction for students to like learning with learning materials that suit their needs and learning objectives.

Varied learning is really needed in the teaching and learning process. One component of learning is the availability of teaching materials that suit student characteristics. According to Laa et al., (2017) a teacher will be able to help students in the learning process by; 1) arouse students' interest in learning, 2) explain learning objectives, 3) present material with a good structure, 4) provide

opportunities for students to practice and provide feedback, 5) pay attention to and explain things that are difficult or not understood by students, 6) creating two-way communication (it is not just the teacher who plays the role of presenting lesson material).

Based on a summary of several theories expressed, the researcher used these steps as a basis for creating learning media in the form of developing PBL system learning materials by drawing to improve students' cognitive and psychomotor abilities. Then, based on this understanding, students can construct their abstraction abilities in learning so that the constructivist values of learning are developed in a positive direction.

RESEARCH METHODS

Research Design

This research is development research to produce products in the form of teaching materials for class XI high school English subjects. The physical form of developing teaching materials is a learning module. This learning module is equipped with practice questions, formative tests, and answer keys. The development that will be carried out in the English learning module is to adopt the ADDIE (analysis, design, develop, implementation, and evaluation) model.

The development model is the basis for developing the product that will be produced. In general, this model consists of five steps, namely: 1. Analysis, 2. Design, 3. Development, 4. Implementation, 5. Evaluation. The basis for choosing this model is because the development steps are more flexible, not specific to instructional design development like the Dick & Carey, Borg & Gall, Kemp, and others models. Apart from that, the ADDIE model is relatively simple and easy to implement, and is suitable for the type of final product to be developed.

Research Procedure

In the ADDIE model, analysis is the first phase that must be carried out. In this phase, the main concern for the designer is the target learner. There are three segments that must be analyzed, namely learners, learning, and media (online) to deliver teaching materials (Pohan, 2014).

In general, the development procedure using the ADDIE model can be simplified into 4 (four) activities, namely: (1) Needs analysis; (2) Product development; (3) Product testing; and (4) and Evaluation of the final product.

Based on the results of the needs analysis that has been carried out, the next step is product development/manufacturing. This stage begins with making an initial design which produces draft 1. In preparing this initial design, a literature review is carried out regarding the content, pedagogy, systematic format of writing and display of learning teaching materials, as well as scenarios of activities that will be carried out by students in the school environment. . The results of the study were poured into the design of learning materials to produce draft 1. Draft 1 was then reviewed and validated by a team of experts. The results of the validator's assessment and comments are used to refine (revision 1) the draft learning material so that draft 2 is produced.

Draft 2 was validated again, then revised according to the validator team's suggestions and produced draft 3. Before being tested, draft 3 which had been assessed as valid was first simulated in a limited forum involving the development team, teachers and several students. Notes and comments from simulation participants are used to improve parts that are still lacking.

RESULTS AND DISCUSSION

Analysis Stage

1. Needs Analysis

Based on observations made by developers in class seen by students. Given these conditions, media is needed that has a coherent and orderly system of programs and activities, which allows students to understand the learning material more easily and achieve higher competencies.

Thus, the development of learning materials by drawing in accordance with the material provided in narrative text and recount text learning, is expected to improve students' ability to write stories and tell stories in English, because by drawing students do not only watch/see/hear picture media, but students integrate with the pictures they make, thus exploring students' abilities in learning English and forcing students to look for vocabulary from the pictures they make and in accordance with students' thoughts and desires. This is really needed by class with friends so that group work is more lively or more enjoyable.

2. Audience Analysis (Students)

Based on the developer's analysis, class XI students at SMAS Adhyaksa 1 Jambi City have the following characteristics:

- a. Students have the skills to operate a computer or laptop.
- b. Students have below average English language skills.
- c. In psychological terms, high school students in the 11th grade, typically aged 15-18 years old, have begun learning to make their own decisions. Therefore, learning facilities that meet the needs for individual learning should be provided.
- d. Economically, SMAS Adhyaksa 1 Jambi City students are children from the middle economic class, and they need media that is easy to understand and interesting to make it easier for them to understand English, where their average English language skills are still below average because for they existing media are difficult to understand and uninteresting.

3. Topic Analysis (Learning Material)

The analysis of this topic or learning material is based on the domain of Competency Achievement Indicators in the Learning Implementation Plan and English Subject Syllabus for SMAS Adhyaksa 1 Jambi Semester 2. Where the Competency Achievement Indicators to be achieved are:

- a. Identify general descriptions, specific and detailed information from simple recount texts about activities/incidents/incidents with full confidence and responsibility.
- b. Elaborate general descriptions and specific information from simple recount texts about activities/incidents/incidents with confidence and responsibility.
- c. Detecting social function, text structure and linguistic elements from simple recount texts.
- d. Distinguish social function, text structure, and linguistic elements in simple recount texts about activities/incidents/events.
- e. Editing simple oral recount texts about activities/incidents/incidents by paying attention to social function, text structure, and linguistic elements that are correct and appropriate to the context.
- f. Editing a simple recount text, write simply about activities/incidents/incidents by paying attention to social function, text structure, and linguistic elements that are correct and appropriate to the context.
- g. Compose simple oral and written recount texts about activities/incidents/events by paying attention to the purpose, text structure, and linguistic elements, correctly and according to the context.

Design Stage

At this stage, it is the design stage of the resulting product. Activities carried out in the design stage include:

1. Schedule creation

This activity is carried out to develop work steps so that they proceed systematically in product development. Table 1 explains the activities and time:

Table 1. Product Manufacturing Schedule

No.	Activity	October				November			
		I	II	III	IV	I	II	III	IV
1.	Analysis	V	V	V	v	V			
2.	Material Collection				v	V			
3.	Product Design				v	V	v		
4.	Formulating Material				v	V	v		
5.	Arranging Material					V	v	v	
6.	Printing Products							v	V

2. Determination of the Project Team

The development of this product was a project team consisting of: researchers as product designers, two validators, namely a learning design expert, a learning media expert and a learning materials expert, then the team members as test targets were 1 English teacher and 39 class students. XI SMAS Adhyaksa 1 Jambi City, who is also a product appraiser.

3. Determining Specifications

In the module specifications, sections such as themes and display design functions (Interface), writing style and grammar guidelines, standard text, images and animations are explained. The detailed module specifications are as follows:

- a. This media contains English learning material about a certain topic in the form of pictures by displaying image media and drawing assignments for students.
- b. The media developed has links to parts of the image that are related and complementary.
- c. The learning media developed is equipped with Core Competencies, Basic Competencies, indicators that serve as learning guidelines for students.
- d. The learning material used in the learning media is English subject material for class XI (eleventh) even semester, namely Recount Text and Narrative Text.
- e. The learning materials used are equipped with practice questions to make it easier for students to recall the learning experiences that have been carried out, starting with a pre-test and ending with a post-test to determine the overall effectiveness of the module.
- f. The material developed emphasizes language skills, namely reading and speaking skills.
- g. The material developed emphasizes student-centered learning which allows students to actively explore and elaborate and discover their own learning experiences.
- h. The media and materials developed can be stored in the form of books/learning modules, where the books can then be reproduced and can become a guide for students or teachers, and can be studied individually or in groups for learning in class (with or without a teacher) or outside learning hours. school individually.

4. Structure of Matter

The learning material developed has the following material structure: 1) identifying core learning competencies, 2) analyzing learning competencies, 3) determining learning objectives and content, 4) determining indicators of learning success, 5) developing learning strategies, 6) developing learning materials, 7) designing an assessment and evaluation system. The following is an explanation of competency standards, basic competencies, indicators, learning materials, and learning objectives.

In individual trials, the general attractiveness aspect was very suitable/very attractive/very clear/very attractive, with a criterion of 88.7%. Several comments and suggestions were given by test subjects, namely:

Making questions that are equipped with processing time for each question provides motivation for students to work quickly and accurately, practice questions are a very important part of the learning module because with these questions they can assess student learning, whether students have achieved the applied learning objectives. The use of varied colors with good composition makes the learning module more interesting. When choosing colors, you need to pay attention to the appropriate color composition. Moreover, learning with media predominantly uses the sense of sight, thus color is very important to pay attention to, so when choosing the colors displayed in the module it is very important to choose the right color composition.

In small group trials, the overall attractiveness aspect of this learning module had a score of 64.4%, falling into the media quality range of appropriate/interesting/clear/harmonious. Student suggestions and comments emphasize improving the quality of images and animations. Pictures and animations can increase the focus of students' attention on learning material, because animations can shorten learning, depict changes in an operation or action or state of things, show events that are dangerous, fast or rarely occur.

Based on the results of field trials, the score for the attractiveness aspect of this learning module was 84.2%. This means that the media using this method of drawing is very suitable/very interesting/very clear/very harmonious, thus learning with modules like this can provide illustrations and really support the achievement of learning objectives (competencies), this is in accordance with the opinion of Mayer (2009:5) which states that learning media is a presentation of material using words as well as images that can support the achievement of learning objectives.

Test subjects suggested that the music in this module be enriched or supplemented, as stated by Putranti (2009), that teachers could play music during learning to create a relaxed atmosphere and arouse students' enthusiasm. He also revealed that several studies have proven that music provides many benefits to humans, in this case students, such as stimulating the mind, improving concentration and memory, and building emotional intelligence (Putranti's Blog/2009/03/06).

To determine the effectiveness of the product being developed, developers look at the results of pre-tests and post-tests carried out in individual trials, small group trials and field trials. Pre-test and post-test results. It can be concluded that the level of students' abilities before taking part in learning using this learning module, students obtained an average pre-test score of 45.89 and a completion rate of 0.5%, whereas after participating in learning using the developed module, students obtained an average score of 0.5%. The post-test average was 78.53 and the completion rate was 86%. The percentage increase in students' average scores in the pre-test and post-test was quite significant, namely 72.03%. The highest score achieved by students in the pre-test was 75, while the highest score by students in the post-test was 95. The students' lowest score also changed, namely in the pre-test it was 10, while in the post-test the student's lowest score was 60.

With the pre-test and post-test data, the developer assumes that the project-based learning materials developed are very effective for students to use in learning.

CONCLUSION

After going through a series of selected developments, a product was finally produced in the form of Project Based-Learning English learning materials for class XI high school students. The teaching materials developed are interesting and effective for use in learning both independently and with teachers in class.

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