

DEVELOPING INQUIRY LEARNING MODEL-BASED ELT MATERIALS FOR THE SEVENTH GRADE OF JUNIOR HIGH SCHOOL

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ABSTRACT

This research is aimed at developing English materials for students of the seventh grade especially in basic competencies 3.7 & 4.7 and 3.8 & 4.8 at MTs Madani Pao-pao based on 2013 curriculum supported by using inquiry learning model and using HOTS characteristic in indicators achieved. Based on the preliminary study on June 2018 by analyzing the textbook which used, the researcher found several problems from the textbook such as the textbook only used an approach without learning model. The research design used in this study was Research and Development (R&D). The development model used was ADDIE model. It consists of needs analysis, design, development, implementation, and evaluation. The procedures included analyzing materials needed by spreading questionnaire to the students and analyzing the basic competencies used, designing a blueprint of materials which include indicators, HOTS characteristic and inquiry learning model, developing the English materials through ADDIE model. Types of data obtained in this study are quantitative and qualitative data. The instruments used in this research were the syllabus including basic competency, questionnaire, table of basic competency analysis, a blueprint of material design and validation checklist for expert. Therefore, the result indicated that based on experts judgment as well as product development result, the developed basic competency 3.7& 4.7 and basic competency 3.8 & 4.8 were applicable to be taught at the seventh grade students of Junior High School as topics in English for them.

Key Words: developing, inquiry learning model, 2013 curriculum, ADDIE model.

INTRODUCTION

The world of education in Indonesia has undergone several changes in learning methods adapted to the times. At the moment the current curriculum is the 2013 curriculum or better known as K-13. The curriculum according to Law Number 20 of 2003 article 1 paragraph 19 is a set of plans and arrangements regarding the purpose, content and material of the lesson as well as the method used as the organizer of learning activities to achieve certain educational goals. Based on the interview on July 2018 with the English teacher of MTs Madani Pao-pao, the teacher stated if her school has difficulty to teach the materials because there were more than one learning models she need to use while there was textbook served supporting by the learning model. Because the explanation above, the book that already exist is currently used by some schools that implement K-13 which is compiled based on the scientific approach without any learning model that follows it. It problem made the researcher should develop the ELT materials supporting by learning model specially for basic competency 3.8 and 4.8 because when the researcher did the preliminary research, the teacher was teaching those basic competencies.

The benefits of compiling material based on the learning model due to the advantages of the learning model itself, namely according to Suprijono (in Arends,2013:46) learning model refers to the approach used including the objectives of learning, the stages in learning activities, learning environment and management class. According to Joice & Weil (in Isjoni, 2013:50) the learning model is a pattern or plan that has been planned in such a way and used to

compile the curriculum, organize the subject matter, and instruct instructors in its class. The book based on the learning model will have more functions for students and teachers, then the research took the initiative to modify and develop the previous book by developing materials that would later be compiled based on scientific approaches and learning models. As for other objectives, researcher will compile material based on factual material, so this makes research choose the right model to support the achievement of its objectives. The learning model recommended by the government in K-13 are project based learning, problem based learning and inquiry learning. With a variety of considerations, inquiry learning model has chosen by the researcher because it based on problem solving and discussion. The stages that exist in the inquiry learning model also lead to factual concepts because in each material the teacher is directed to provide problems related to the surrounding environment in students so that students more easily understand the material.

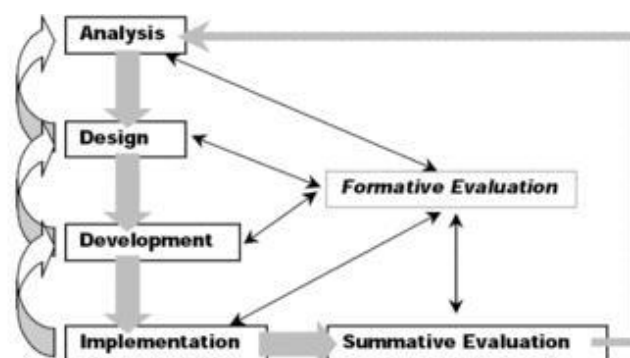
The previous research conducted by Hikmawati & Djuwairiah Ahmad(2016). Their research is about developing an English material for the seventh grade of Junior High School based on 2013 curriculum. To determine whether the module is suitable for use, research use a questionnaire given to teachers and students. The results of the questionnaire analysis showed that the module model entitled “Greetings and Self Introducing” Junior High School had been valid, practical, and effective, and could be used in learning Indonesian language, especially in editing material for grade VII students of Junior High School.

Yuni Ananingsih (2012). In her research, she found a problem regarding the effectiveness of inquiry learning in increasing learning motivation and student achievement in the learning process of reduction-oxidation material. From the results of research on the problem, it was found that the application of the inquiry learning model in learning the reduction-oxidation material was less effective in increasing the learning motivation of students. While the learning achievement of students has increased, because there is an interaction process during learning, both interactions between students and students, as well as students with teachers. From these interactions, students gain various kinds of understanding or explanation, so that the understanding of the students will be increased.

Based on some previous finding researches, the writer concludes several things. Through the development of teaching materials adapted to the inquiry learning model, can improve students' learning achievement

RESEARCH METHOD

The research design used by researcher was Research and Development (R&D). Borg and Gall in their material Educational research an introduction stated that educational research and development (R&D). In developing materials, researcher used ADDIE models.



The ADDIE's Model (McGriff, 2000)

“ADDIE” that stands for **A**nalyze, **D**esign, **D**evelop, **I**mplement, and **E**valuate was designed to ensure that the learners achieved the goals and objectives of the learning purposes. It also provided simple procedure to design and develop materials. In addition, it was an iterative evaluation of each phase might lead the instructional designer back to any previous phase.

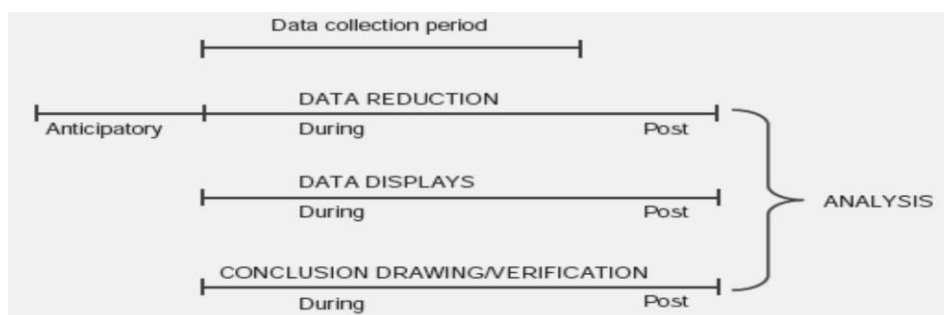
Analyze phase, the researcher analyzed each basic competence and found out the indicator achieved. *Design phase*, the researcher designed the blueprint of the material which consisted of the indicators, materials sequence and learning activities. *Develop phase*, the researcher started to develop the materials based on the available blueprint. *Implement phase*, the researcher tried out the product to the students of the seventh grade at MTs Madani Paopao which consisted of 146 students as the subject of this research. The last phase *Evaluation phase*, the researcher gave the evaluation checklist to the experts to get the experts’ judgment and measured the validity of the product.

To get the result of this research, the researcher used three instruments. The first is documents containing the syllabus of 2013 curriculum revised edition which was published in 2017 by the government, basic competence analysis, and the blueprint of materials. The second is questionnaire adapted by Andi Kaharuddin(2015:p.75-78) for the students. The third is the validation checklist adapted from Ghobrani(2011:p.517-520) and Widyatmoko(2011) cited by Sukirman(2013) and filled out by the experts. The instrument used as a source for research in supporting this research process, so that the planned process can be

carried out and achieved well. These instruments were interrelated with each other.

The syllabus was used as the foundation to design a blueprint for the material, supporting by the result of spreading the questionnaire and analyzing basic competency. Questionnaire used to know students' need, analysis basic competence analysis displayed in table used by researcher to get the indicators would be achieved and categorized the HOTS indicators, whereas validation checklist used as a tool by experts in assessing and evaluating products that produced/developed by the researcher.

In this research, the researcher used qualitative and quantitative data analysis technique to analyze the data. The qualitative data followed several steps by Miles and Huberman. They suggest that in analyzing the data qualitatively consists of three procedures. First was data reduction. Second was data display. Third was conclusion draw.



Procedures of Data Analysis Technique in Qualitative by Miles and Huberman

The quantitative data was gotten by several steps. Firstly, in gathering information from students and experts the researcher used the need analysis questionnaires and validation checklist. Types of questions are linguistic needs and learning needs used for assessing whole needs of the target. Because of the

subject of this research was the first grade of junior high school, so the researcher used yes/no question in getting students' needs.

Secondly, the quantitative data analysis technique used to find the result of the questionnaire displayed below:

$$\sum f_x = f_{x(VII-A)} + f_{x(VII-B)} + f_{x(VII-C)} + f_{x(VII-D)} + f_{x(VII-E)}$$

Where: $\sum f_x$ = total number of students

f_x = number of students in each class

The researcher used the formula below to analyze the data from the questionnaire:

- Formula for *yes* answer

$$\sum f_{yes} = f_{yes(VII-A)} + f_{yes(VII-B)} + f_{yes(VII-C)} + f_{yes(VII-D)} + f_{yes(VII-E)}$$

- Formula for *no* answer

$$\sum f_{no} = f_{no(VII-A)} + f_{no(VII-B)} + f_{no(VII-C)} + f_{no(VII-D)} + f_{no(VII-E)}$$

After getting the data for *yes* and *no*, the researcher compared the *yes* answer and the *no* answer, which data is bigger than other is taken as the final result.

The overall data are then analyzed to recognize the needs inventory of the target group in language learning which is then used as the basis for formulating aims and objectives of learning and designing material.

Data analysis technique used to find the result of the validity level of the product developed displayed below:

$$\bar{x} = \frac{y_1 + y_2}{n}$$

Where:

x = the average of rating scale

y = the expert

n = total number of expert

The scale of validity level of the product developed displayed below:

0-1 = very inappropriate

1,1-2 = inappropriate

2,1-3 = appropriate

3,1-4 = very appropriate

FINDINGS AND DISCUSSIONS

The needs inventory

Identifying linguistic needs is carried out by analyzing the students' learning ability and learning priorities. The result of the analysis are used for prioritizing the components of English materials in each basic competence and selecting appropriate teaching materials which are required to design the syllabus of English materials in each basic competence

2.1.1) Learning Ability

- Introduce self by using English (118 students chose yes and 28 students chose no)
- Write daily activity by using English (70 students chose yes and 76 students chose no)
- Read an English short story fluently (46 students chose yes and 100 students chose no)

2.1.2) Learning Priorities

- Interested in listening to the teacher in understanding the material (131 students chose yes and 15 students chose no)
- Interested in material example with dialog (128 students chose yes and 18 students chose no)
- Interested in learning English subject (122 students chose yes and 24 students chose no)
- Interested in material presentation with colorful picture (117 students chose yes and 29 students chose no)
- Interested in material example with text/description (110 students chose yes and 36 students chose no)
- Interested in doing the task (103 students chose yes and 43 students chose no)
- Interested in reading the material (87 students chose yes and 59 students chose no)

2.1) Reviewing Needs Inventory from the Learning Needs

The students learning needs in this study were identified by analyzing the students learning problems and learning attitudes. The students' learning problems were described based on the analysis of the respondents' perceptions on the understanding the material content and material example. While to explain the students' attitude, the researcher analyzed the students' learning preferences and learning styles based on the respondents' perceptions.

2.2.1) The Students' Learning Problems

- The students do not understand the meaning of the textbook of material content (94 students chose yes and 52 students chose no)
- The students do not understand the teacher's explanation of material example (92 students chose yes and 54 students chose no)
- The students do not understand the meaning of the textbook of material example (92 students chose yes and 54 students chose no)
- The students do not understand the teacher's explanation of material content (82 students chose yes and 64 students chose no)

2.2.2) The Students' Learning Attitude

It has already been stated that learning attitudes are analyzed to discover what the students like to learn. For the reason, the focus of this discussion deals with identification of the learning preferences and styles in learning English materials.

2.2.2.1) The Students' Learning Preferences

- The students prefer using an visual as the media in learning process (133 students chose yes and 13 students chose no)
- The students prefer asking to the teacher if they were in difficulties in learning process (126 students chose yes and 20 students chose no)
- The students prefer using an audio-visual as the media in learning process (117 students chose yes and 29 students chose no)
- The students prefer reading the material twice if they were in difficulties in learning process (102 students chose yes and 44 students chose no)

- The students prefer asking to the friends if they were in difficulties in learning process (98 students chose yes and 48 students chose no)
- The students prefer using an audio as the media in learning process (79 students chose yes and 67 students chose no)

2.2.2.2) The Students' Learning Styles

- Listening to the teacher's explanation (130 students chose yes and 16 students chose no)
- Working in pairs (126 students chose yes and 20 students chose no)
- Learning by game (124 students chose yes and 22 students chose no)
- Working in a group (111 students chose yes and 35 students chose no)
- Learning by media/tools (108 students chose yes and 38 students chose no)
- Working alone (75 students chose yes and 71 students chose no)

The result of analyzing basic competencies

Basic competency 3.7, it is in the point 5 and has supporting indicator, main indicator and enrichment indicator. Each indicator consisted of 18 sub-indicators. In basic competency 3.7 have 3 indicators and 54 sub-indicators. Basic competency 4.7.1, it is in the point 1 and has main indicator and enrichment indicator. Each indicator consisted of 18 sub-indicators. In basic competency 4.7.1 have 2 indicators and 36 sub-indicators. Basic competency 4.7.2, it is in the point 6 and has supporting indicator and main indicator. Each indicator consisted of 18 sub-indicators. In basic competency 4.7.2 have 2 indicators and 36 sub-indicators. Basic competency 3.7, it is in the point 2 and has supporting indicator, main

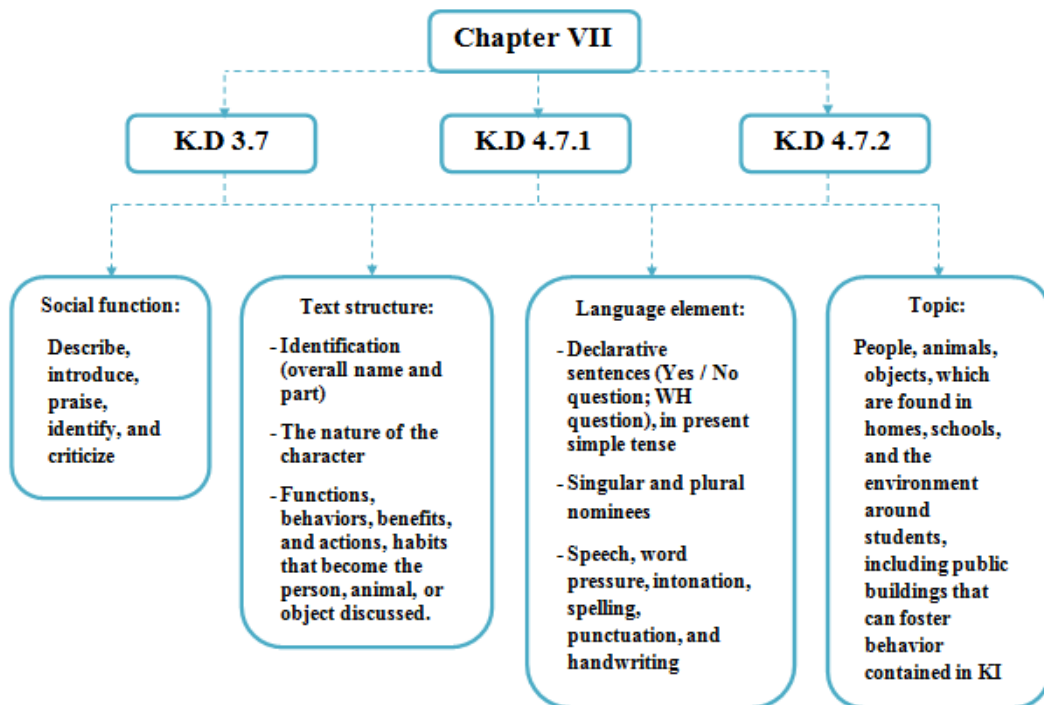
indicator and enrichment indicator. Each indicator consisted of 2 sub-indicators.

In basic competency 3.8 have 3 indicators and 6 sub-indicators.

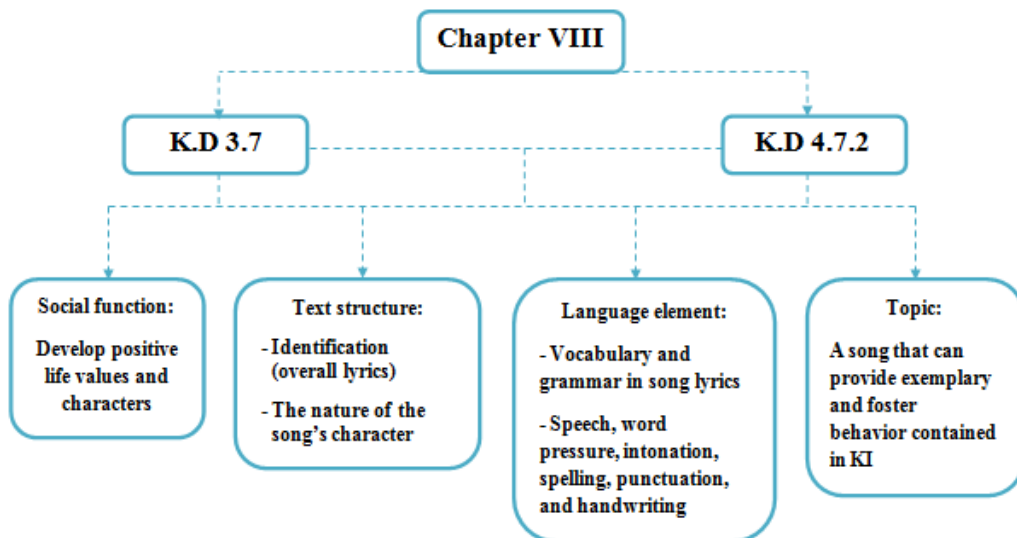
The design of Blueprint

- Basic competency which displayed is basic competencies 3.7., 3.8., 4.7. and 4.8. then were explained each basic competency to the indicators that it has.
- Subject matter is the main reference that elaborated through material arranged in the form of material, activities, and exercise. Based on the description of the basic competency, the subject matter contains three main aspects, namely social function, text structure, and linguistic elements.
- Learning material is a set of material that compiled based on the results of basic competency analysis that produced new indicators and then new material
- Indicator of competence achievement contained three types of indicators, namely, supporting indicator, main indicator, and enrichment indicator describing the subject matter.
- Learning activities consisted of two aspects, students' activities and teacher's activities that designed based on inquiry learning model which consisted of orientation, formulating problem, formulating hypothesis, collecting information, testing hypothesis, and conclusion.

The result of materials development



A framework for English Material in chapter VII based on syllabus



A framework for English Material in chapter VIII based on syllabus

The experts' judgment

The results of the evaluation were quoted from the observation sheets that have been given to the experts. The observation sheet consisted at several items such as cover, layout, instructional objective, organization of materials, the systematic content of the materials, and activities/tasks/exercise are already checked with a good mark. After all the items marked and resulted good, the learning materials then claimed valid as reflected to the experts suggestions: The teaching materials have been very well designed due to the followed reasons: (the first expert) The objectives and goals were stated, it has development framework, and it systematically present the idea of based on inquiry learning model supported with the HOTS indicators. (the second expert) overall the material and the content are appropriate with the blueprint. In conclusion, the validity level of the material development is very appropriate to the blueprint due to the validation checklist.

CONCLUSIONS AND SUGGESTIONS

Conclusions

1. The English materials development in the seventh grade of MTs Madani Pao-pao based on the Blueprint consist of 138 indicators which displayed in 48 phases in the material includes conceptual map, goals, materials sequence, and product overview.
2. The expert validation for the development of product such as English materials and worksheet has been very well designed due to the following reasons.

Suggestions

It is suggested to the next or further researcher to conduct a research by using research and development method. While for development model, the next or further researcher can use ADDIE (Analysis Design Development Implementation and Evaluation) model if the next or further researcher want to develop printed materials such textbooks, module, worksheet, etc. Inquiry learning model can be used as a learning model to develop a product because it can make product suites with the English subject.

It is also suggested to the next research to continuous this research especially in development model, because in implementation phase, the product of this research are not tried out to the subject. In evaluation phase, this research only evaluated the validity, whereas there are two left behind; practicality and efficiently.

In the other hand, this research still needs many suggestions for better result. The researcher hopes that the reader can give suggestion of this research. Especially, for the next researcher could complete this research because this research did not do implementation phase because there were several problem.

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