DEVELOPMENT OF PROBLEM BASED LEARNING BOOK FOR
INDONESIAN LANGUAGE AND LITERATURE SUBJECT AT
JUNIOR HIGH SCHOOL

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Article Information

Article History:
Accepted November 2019
Approved December 2019
Published January 2020

Keywords:
Problem-based learning book, Indonesian language and literature

How to Cite:

Abstract

Problem-based learning connects new problems that exist in daily life. It optimizes the ability to think through the process of group work and experimental activities. The students have difficulties in solving problems. They have little experience and are not highly motivated. It makes them unable to explore what students have. The conventional methods lack of training in critical thinking for students. This causes students to lack confidence to play an active role in the learning process. Based on these problems, the present study therefore developed the Indonesian language learning materials for Grade 7 at the junior high school level using the Problem Based Learning model.
INTRODUCTION

For a cognitive development, there is cognitive activity to obtain information in solving problems related to psychological factors for junior high school-aged children (Desmita, 2016: 98). According to Piaget, children have high curiosity about science. They actively explore various sources of information as they want to solve problems. Children will apply the knowledge they have based on learning experience. Children have a free opportunity to choose a learning strategy in accordance with their wishes. Children will experience an equilibration process where facing cognitive conflict and feel uncomfortable when having difficulty solving problems caused by lack of learning experience they have.

David Elkind (in Desmita 2016: 110) argues that at the age of 11- adulthood children will experience a transition period of children to adolescence. Cognitive development is mentally immature. In adolescence, they develop critical thinking that is still original and responsible based on direct observation of data, hold a strong principle to show confidence has the ability to argue and believe in the decisions taken. Some teenagers are hesitant in making decisions because the experience is minimal.

Problem-based learning (PBL) according to Barrow (in Murfiah, 2017: 143) is problem-based learning designed for students to be able to build their own knowledge in solving problems faced. The cognitive development to overcome various problems should be stimulated. Students try to find a way to cope with Indonesian language materials being discussed. So it is driven by a great curiosity to promote creative ideas.

PBL emphasizes team collaboration to collect data. During this time students in solving problems tend to be individual. They are not sensitive to caring for peers. In this instance, students with high level of education and achievement index tends to be selfish. A superior achievement index wants to show its existence and feel confident while students who have a low index lack confidence, fear of wrong opinions and hesitation in making decisions.

Students have the right to learning autonomy in the supervision of teacher guidance. Rights and power in determining learning strategies. The teacher guides and directs students to be able to solve problems and work independently in the provision of students in navigating the challenges of the 21st century in the world of work.

For some schools PBL models are relatively new. PBL has a positive impact on students. Students become interested in participating in learning activities. Creating learning activities is fun. Students become active in work and have very high motivation in learning, confidence and courage to express their creative ideas in front of the class. Learning that involves students can increase creative and critical ideas about problems.

During this time students are comfortable with conventional methods, one of which is the teacher-centered lecture method. This method causes students to be passive and isolated. The teacher lectures and delivers the material while the students listen, take notes, and do the assignments. Activities in the learning process cause students to become bored, and sleepy. Conventional methods lack training in critical thinking. This causes students to lack confidence to play an active role in the learning process. Students’ concern in the group is still not well planted. Smart learners tend to be selfish to help peers who have learning difficulties. Therefore, students who are weak in learning are less confident in solving problems and are desperate to try again, while students have a high performance index less leave them far behind and challenged the knowledge they get. In the other situation, the seventh grade class Indonesian literature and language teaching materials provided by the government have not considered the development of junior high school students. The appearance of images must have a function and attract the attention of students to read. This causes the students to be less motivated and less comfortable to read.

The learning using conventional methods makes students quickly get bored and sleepy during learning activities. They consider learning activities to be confined to
prison. PBL model is expected to be fun learning activities. Students are motivated to learn Indonesian language and literature. Based on these problems, it is necessary to develop the Indonesian language teaching materials for the seventh grade at the junior high school level using PBL model.

The purpose of this study is to encourage students to actively participate in group discussions. Students are the ones who design problems and have their own ways of learning. It requires to think critically in solving problems and ability to find the right solution to answer the various challenges that are being faced. Students with confidence maintain their arguments based on the truth of information obtained from various sources and fostering an attitude of caring among peers. Students who have high achievement share information to students who have low achievement who are experiencing difficulties in learning. So that students are motivated and learn to be useful. The role of the teacher places himself only as a facilitator. This development product is in the form of Indonesian language and literature textbook for the seventh grade in semester 2.

LITERATURE REVIEW
Problem-Based Learning

Problem Based Learning (PBL) is one model learning that can help students to improve skills which is needed in the current era of globalization. Problem Based Learning (PBL) was developed for the first time by Prof. Howard Barrows around the 1970s in the study of medical science at McMaster University Canada (Amir, 2009, p. 124). This learning model presents a real problem for students as a beginning of learning later completed through investigation and applied using problem solving approach.

Problem Based Learning is a model learning that exposes students to real-world problems (real world) to start learning and is one model innovative learning that can provide active learning conditions to student. Problem Based Learning is curriculum development and learning process. In the curriculum, problems are designed which requires students to gain important knowledge, to make they are adept at solving problems, and have learning strategies and the ability to participate in teams. The learning process use a systemic approach to problem solving or challenges that are needed in everyday life.

There are some characteristics of the Problem based learning process according Amir (2007, p. 23) including:
1) The problem is used as a beginning of learning.
2) Usually, the problem used is a real world problem which is presented floating.
3) Problems usually require multiple perspectives. The solution demanding students use and get concepts from some of the knowledge that has been previously taught or cross science to other fields.
4) Problems make students challenged to get learning in the new realm of learning.
5) Strongly prioritizes independent learning (self directed learning).
6) Make use of varied sources of knowledge, not from one source only.
7) Collaborative, communicative, and cooperative learning. Student work in groups, interact, teach each other (peerteaching), and make presentations.

METHOD

The purpose of this research was to develop the Indonesian language and literature text books and to determine the characteristics and validity. The study started with product development and then continued by feasibility test. This problem based learning in the application of Indonesian language and literature learning consisted of five phases. They are: identifying problems, identifying learning issues, setting goal and making plan, learning knowledge, applying knowledge, and assessing and reflecting.

This teaching material development design had five stages: analysis, design, development, implementation, evaluation.
The first step in analyzing the curriculum consisted of Graduate Competence Standard (known as SKL), Core Competencies (known as KI), Basic Competences (known as KD), and Learning Implementation Plan (known as RPP). The instructors of teaching materials paid attention to the characteristics of junior high school-age students and the illustrations had a function so that students got the correct information. The third step of the development phase was validated by material experts, media experts, design experts, and subject teachers. The fourth step is the implementation of small group trials and large group trials.

The research participants were the respondents to the questionnaires for the material and media experts, Indonesian language teachers, and students at 17 Dharma Wanita Junior High School, Wonoayu, Sidoarjo Regency, while the field trial was conducted in Grade 7.

The learning activities used the PBL model based on the questionnaire data that contained a list of questions covering three aspects, namely accuracy, suitability, and attractiveness.

At the third step of the development phase, the validation was carried out by material experts, media experts, design experts, and subject teachers. The experts provided an assessment of product development designed by filling out a questionnaire. Based on the suggestions submitted by the experts, it would be used to revise the deficiencies in teaching materials. Assessment of teaching materials used a scale with a range of 1 (very inappropriate), 2 (inappropriate), 3 (appropriate), and 4 (very appropriate). The fourth step is the implementation of small group trials and large group trials. The small group trial was followed by 6 students, which included two students who had a low achievement index, 2 moderate achievement indexes, and 2 high achievement indexes, while the large group trials of large group trials were divided into 6 groups. In one group consists of four students based on the list of class attendance. The subject matter used for try out about fables and legends in the book developed using PBL models. Besides that, the students gave assessment by completing questionnaires after following the learning. The purpose of testing large group data was to determine the level of understanding of students and the level of effectiveness of PBL learning models.

The learning activities used the PBL model based on the questionnaire data that contained a list of questions covering three aspects, namely accuracy, suitability, and attractiveness. The assessment results from the experts were analyzed in the form of tables. The aim was to find out the average and percentage values based on the assessments obtained from the validation by the experts. It aims to find out the validity of teaching materials to be applied in the classroom learning activities using the formula suggested by Sudijono (1998: 28) as follows:

$$P = \frac{f}{n} \times 100\%$$

(where $P =$ Percentage, $f =$ Number of respondents' answer frequency for a choice, and $n =$ number of items)

<table>
<thead>
<tr>
<th>Level of achievement</th>
<th>Categories</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% - 100%</td>
<td>very good</td>
<td>Can be used without revision</td>
</tr>
<tr>
<td>75% - 84%</td>
<td>good</td>
<td>Can be used with a little revision</td>
</tr>
<tr>
<td>65% - 74%</td>
<td>fair</td>
<td>Can be used with enough revision</td>
</tr>
<tr>
<td>55% - 64%</td>
<td>poor</td>
<td>Can be used with much revision</td>
</tr>
<tr>
<td>0% - 54%</td>
<td>very poor</td>
<td>Total revision is needed</td>
</tr>
</tbody>
</table>

Table 1. Indicators for achievement levels
To evaluate the validity, reliability and economy of the developed questionnaire checklist following the model suggested by Mukundan and Nimechisalem (2012), two Indonesian language and media experts used the checklist to evaluate the same textbook. The inter-rater reliability results showed acceptable reliability coefficients ($r=.86$). The checklist was tested for the correlation of its results with those of a well-established instrument and a high correlation ($r=.76$) was observed.

**RESULTS**

This section contains exposure to research data. This research product is in the form of Indonesian language and literature teaching materials for the seventh grade in the second semester. The validation of Indonesian language and literature teaching materials was carried out by four validators. They were the material experts, design experts, and Indonesian language subject teachers presented in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects</th>
<th>Question Items</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accuracy</td>
<td>a. Accuracy of basic competencies and core competencies with learning objectives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Accuracy of the depth and breadth of material content</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Accuracy in the use of punctuation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Accuracy in using capital/small letters</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Accurate use of terms</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Accuracy</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Suitability</td>
<td>k. Suitability of the level of difficulty in content</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>l. Suitability of problem level</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>m. Conformity to encourage students to think critically and creatively</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>n. Suitability of material content with problems in daily life</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o. Suitability to motivate</td>
<td></td>
</tr>
</tbody>
</table>

(Consistent ) usage of term

g. Accuracy of illustration on the contents of material

h. Accuracy of the selection of questions in accordance with the learning objectives

i. Accuracy in the use of language with the cognitive abilities of junior high school students

j. Accuracy of the material with the characteristics of junior high school students

Table 2. Validation of Indonesian language and literature textbook for the seventh grade of the junior high school by material experts
Table 3 reveals the results of the design expert validation assessment the number of values obtained is 54 based on aspects of accuracy, suitability, attractiveness, and suitability. These results indicated that the achievements obtained were at the level of 85% -100%, then the product results were in good qualification and the quality of the product had a slight revision.

Based on the suggestions of the design experts, the shortcomings of the Indonesian language teaching materials were in developing instructional materials to be observed in the development of the characteristics of students in accordance with the junior high school-aged children and how to focus attention. Selection of the images in the teaching materials has a function so that the students when reading get the information correctly.

The feasibility is reviewed based on the results of small group trials. The students assessed teaching materials that include the design and content of the materials. The students who followed the small group test were selected by 6 students based on the level of moderate learning achievement and high grades. Furthermore, the students filled out a questionnaire consisting of 16 questions. The students gave suggestions and criticisms that were used to reflect on the shortcomings of the product.

The large group field trials aimed to determine the level of understanding of students and effectiveness by using the PBL model. The students who took part in the learning activities consisted of 24 students and divided into 6 groups based on attendance. To find out the effectiveness of Indonesian language teaching materials by practicing in the classroom by testing the ability level of students by means of the process of learning activities with the PBL model and giving questions about fables and legends. After completing the learning activities, the students filled out a questionnaire.

The PBL models have several advantages, namely (1) learning in the classroom becomes fun. (2) Students are challenged with new knowledge. (3) Students...
are motivated to learn. (4) Students are free to find the desired source of information. (5) Group work is able to help students who experience difficulties become easily overcome. (6) students are active in the learning process.

The results of the correspondent field test showed that the material of fables and legends using the PBL models can attract the attention of students so that they are motivated to learn. Students are required to be active in learning activities. They are free to express opinions based on the experience of knowledge possessed. Students explore creative ideas in expressing their opinions. So learning activities are fun. During this time learning that uses a boring system is likened to being stuck in iron bars.

On the other hand in the application of PBL students who have low abilities have difficulties in learning. When students who have a low achievement index face problems that are difficult to solve, desperate and not excited anymore to continue their work, while students who have a high achievement index shot further in understanding the material and were less painstaking to help their colleagues who experienced difficulties. This PBL learning model requires good cooperation in solving shared problems. The results of learning by using validation to measure students' abilities in understanding the material and effectiveness in Indonesian language and literature teaching materials.

Although the PBL model in the Indonesian language and literature subject was appropriate to be applied in the seventh grade, even though the suggestions submitted were to use to evaluate the weaknesses of teaching materials.

The study results in feasibility test showed that the developed literacy textbook has average score 90.74%. It means the textbook is suitable. Based on the readability test result, science literacy textbook is easy to learn. The average of score of cloze test was 88.14%. The effectiveness of the developed textbook was classified as an effective stimulant to increase students Indonesian language literacy.

The preparation of Indonesian language and literature materials using the 2013 curriculum has undergone a 2017 revision based on the suggestions of material experts. The suggestions submitted by material experts are (1) the depth, breadth and relevance of the material are good. (2) Spelling adapted to the Indonesian spelling system. Based on the assessment and suggestions from the Indonesian language and literary material experts, they revised the teaching material products.
The image placed has a function. (3) Use of the box to pay attention to the function in its use. (4) Paying attention to the characteristics of students for junior high school and motivated to learn.

When planning instructional materials, attention is paid to the development of junior high school students. At this stage the development of thinking about adolescents is abstract and logical. They can think about connecting the problem by finding the cause. After they understand the cause of the problem, then they are looking for efficacious drugs in solving problems.

They are free to find various information as they wish. In adolescence, there is a growing critical thinking, defending arguments according to the way of thinking that is reality, and being responsible based on the experiences they have (Desmita 2016: 108).

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In Figure 4 the front cover design uses a blue color as the background. The blue color is calm in stabilizing emotions and beliefs in deciding a problem. The color selection in letter writing uses yellow. The design style used is Futurism Style. This type of design brings together several different elements into one. The selection of this type of design aims for the students to understand the information presented in Indonesian language and literature teaching materials, students are able to focus their attention on the source of information to be read, and are comfortable to learn. The layout style applied to this main cover is Mondarian Layout. This teaching material is designed to present images that represent the material content in semester 2.

The image placed on the main cover has meaning, namely in semester 2 the students will learn about folk poetry materials, regional prose, official and non-official letters, and literacy. Interesting design on the cover determines the students' interest in reading and motivating learning.

The type of font used in the subsection is Christian ITC using the font size 36, while the writing of the keyword uses the Comic Sans MS font using the font size 12. The design style used is Futurism Style. The layout style applied to this main cover is Mondarian Layout. The presentation of the image becomes solid and has a concept.

Figure 5 in section one has the concept of folk poetry. Indonesia has a variety of cultures through folk poetry. Each region in Indonesia has a tradition of folk poetry consisting of pantun, gurindam, and poetry. Showing pictures of Raja Haji Ali. He is a famous figure of classical Malay literature. His famous work is the Gurindam 12 and the
poetry of the natural gemala. The use of font size is distinguished between chapter titles and keywords. Font size on keywords is reduced. The writing of the title in the section is more focused on aiming to represent the contents of the material to be studied.

In section 2 the concepts in chapter one about Indonesia have varied types of culture, one of which is through the people's puisi. Every region in Indonesia has folk poetry consisting of pantun, gurindam, and poetry. On the cover of chapter one it shows a picture of the figure of Raja Haji Ali. He is a famous figure of classical Malay literature. His famous work is Gurindam 12 and the poetry of the natural gemala. The use of font size is distinguished between chapter titles and keywords. The font size on keywords is reduced. The writing of the title in the section is more focused on aiming to represent the contents of the material to be studied.

The concept on the cover of section three is on letters. This section presents illustrations of the contents of official and non-official letters so the students can find information about letters. The use of font size is distinguished between chapter titles and keywords. The font size on keywords is reduced. The writing of the title in the section is more focused on aiming to represent the contents of the material to be studied.

The cover concept in section four about literacy. This section displays pictures of students visiting the library. The students choose books to read and summarize the contents of books that have been read. The school literacy activities aim to increase interest and ability to read and write. They familiarize culture with reading for 15 minutes before learning begins. The use of font size is distinguished between chapter titles and keywords. Font size on keywords is reduced. The writing of the title in the section is more focused on aiming to represent the contents of the material to be studied.
Muth (1994). They indicated that the students actively constructed conceptual relations between new knowledge and existing knowledge in learning science. Conceptual relations in science are of many kinds, including hierarchical, enumerative, exemplifying, sequential, comparative, contrasting, causal, temporal, additive, adversative, and problem solving. Relations of these kinds are woven into well-written scientific text.

CONCLUSION
Based on the results of this study it concluded that the developed textbook has served as an important teaching aid in junior high school Indonesian language courses, which conveys some of the information that students receive and influences how students perceive this subject. The textbook is feasible and readable. PBL which the textbook bases on aims to build their own knowledge in solving various problems. The PBL method emphasizes group collaboration to collect data. In this instance the students in solving problems tend to be individual. They have not yet embedded concern for peers and their surrounding environment. This cause the students who have high achievement indexes run away in solving problems quickly while the students who have a low achievement index have difficulties when facing problems that difficult to solve causes a lack of confidence and desperation to do the job.

The students have the right for learning autonomy but in the supervision of teacher guidance. The teachers serve as facilitators in learning. The teacher guides and directs students in conducting investigations and ways to solve problems. On the other hand the teachers in applying the PBL method experience problems. The teachers have not been able to design problem-based learning and need a long time to prepare for the learning activities. It causes other materials to fall behind.

The PBL method has a positive impact on students. Learning activities of students become enthusiastic and eager to learn. It creates an atmosphere of learning that becomes fun, active and has a high curiosity about new knowledge they have not yet earned.

To help students achieve the Indonesian language literacy, the teachers should ensure that each school’s curriculum includes integrated language skills learning since PBL can help the middle school students learn their basic language knowledge in a way that would be more lasting while helping to develop language skills simultaneously (Marra et.al, 2014).

REFERENCES


