Reflective Picture Storybook: An Innovative Reading Material to Promote Reflective Learners

1st Ali Mustadi  
Primary Education  
Yogyakarta State University  
Yogyakarta, Indonesia  
ali_mustadi@uny.ac.id

2nd Suhardi  
Indonesian Language and Literature Education  
Yogyakarta State University  
Yogyakarta, Indonesia  
suhardiuny@yahoo.com

3rd Latifah Prihandini  
Primary Education  
Yogyakarta State University  
Yogyakarta, Indonesia  
ffah.prihandini@yahoo.co.id

4th Eko Yuli Supriyanta  
Primary Education  
Yogyakarta State University  
Yogyakarta, Indonesia  
yulisupriyanta@gmail.com

5th Wijang Candi Kirana  
Primary Education  
Yogyakarta State University  
Yogyakarta, Indonesia  
ahmadwijangkirana@gmail.com

6th Amin Prasetyo Aji  
Primary Education  
Yogyakarta State University  
Yogyakarta, Indonesia  
yoaj69@gmail.com

7th Citra Rahmawati  
Primary Education  
Yogyakarta State University  
Yogyakarta, Indonesia  
citrarahmawati93@gmail.com

Abstract—Storybooks are one of the interesting reading materials suitable for elementary school students. This paper discusses the development of reading material in the form of reflective picture storybook. The book is organized by prioritizing a combination of stories and illustrations that are appropriate to the development of elementary school students. Through reflective picture storybook, students are accustomed to doing reflective thinking in solving problems. The development of this book was carried out with the following steps: gathering information through questionnaires of needs analysis, interviews, and literature review; planning for product reflective picture storybook is made; expert judgment by material experts and media experts to measure product quality before conducting preliminary field testing. The results of the validation carried out by experts show that reflective picture storybook is in a good category which means it is feasible and can be used by elementary school students.

Keywords—Reflective-Picture-Storybook, Reading Material, Reflective Learners.

I. INTRODUCTION

The aim of quality education is the ability to prepare participants to be ready to face challenges in real life. Education in Indonesia begins with preschool education, basic education, secondary education, and ends with higher education. As a basis before completing secondary education, students are required to take basic education. Primary education is taken within 6 years in elementary school.

Elementary students must be equipped with knowledge, skills and values that will be useful later in life. Basic education is a very important stage for a child's life. Therefore, education in elementary schools must really be designed in accordance with the objectives of national education as stated in Law No. 20 of 2003 Article 3, which reads, "National education functions to develop the ability and shape the character and dignity of a nation that is dignified in order to educate the life of the nation, aims to develop the potential of students to be faithful and devoted to God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and to be a democratic and responsible citizen."

One inseparable part of education is literacy. Literacy is an important factor supporting the success of the learning process. UNESCO defines literacy as the ability to identify, understand, interpret, create, communicate, and calculate using printed and written materials related to various contexts. Starting from this, the basic abilities that must be mastered in order to have good literacy skills are reading. However, according to the 2015 PISA results, Indonesia only ranked 64 from 72 participating countries [1].

To overcome the low literacy in Indonesia, various efforts are needed to increase reading interest, especially for children. By providing interesting books or reading material, students will be motivated to read. The more often they read, the more the student's reading ability will increase.

Thinking is an activity that occurs in a person both consciously and unconsciously. One part of thinking is reflective thinking. Reflective thinking is a thinking ability that supports problem solving skills. Reflective thinking has an important role as a suggestion to encourage students during a situation that requires problem solving because it provides an opportunity to see the previous step and determine the best strategy [2].

Reflective thinking begins with self-reflection that arises in oneself as a result of critical reactions to things outside of oneself, then attempts to see oneself from another point of view [3]. Through reflective learning, students perform complex processes that require new knowledge and skills [4] [5]. Students are invited to practice self-reflection in order to be able to think reflectively.

Reflective thinking must be attempted and driven by education. This is because reflective thinking is a type of thinking that considers choices and reasons before choosing an action or adopting a belief [6] [7]. So, it is not only in...
matters relating to academics that require reflective thinking, but also in everyday life.

Efforts to improve the ability of reflective thinking can be done by providing interesting and quality reading material. Quality reading materials are those that can stimulate children's thinking. Reflective picture storybook is a development of illustrated storybooks. The word ‘reflective’ comes from the word ‘reflection’ which means ‘having an image’. The reflection on reflective picture storybook is based on John Dewey's reflective thinking theory.

Reflective picture storybook is an interesting reading material for elementary students. Picture storybooks are chosen as a reading material, given that elementary students are still in the concrete operational stage so they need illustrations to clarify the meaning of reading. Picture storybooks attempt to convey messages through illustrations and writing [8] in which illustrations and books are interrelated [9]. Text and illustration of images support each other as an inseparable whole. Images will also make the text look more concrete and at the same time enrich the meaning of the text [10].

Illustrations and text stories simultaneously present stories to readers through verbal and visual symbols where they support each other synergistically. Images and texts reinforce each other in presenting a meaning of the story. The existence of elements of images in the story provides an advantage to help students understand the text content of the story as presented, [11] that through picture books, students' perceptions will be more easily influenced even if they do not see the original form. The use of illustrated storybooks is useful so that students can have an understanding of literature for themselves. Literary understanding comes from how they capture the content of the stories they read assisted by strengthening visual understanding [12].

From the results of the survey in need analysis conducted by the researcher through a questionnaire, it is stated that out of 112 students studied, the average liked picture books, especially if the illustrations in the book were good. This of course becomes an opportunity to invite and practice reflective thinking on students.

The survey conducted by Diana Mitchell also found that most children like reading about adventure, fiction, and imagination [9]. Elementary students who are still in the developmental stage need a lot of reading that can increase their knowledge and imaginative power. Therefore, elementary students should read a lot of reading that can support their cognitive and affective development.

After reading, students not only understand the contents of the story, but are also invited to reflect on it in their daily lives. The book developed stimulates students to self-reflect through the characters, plot, and mandate (lesson) contained in the story. Bohlin states that reading things related to literature can give students the opportunity to engage in moral reflection [13]. This means that with literature, students can be trained to reflect and build their morals.

Reflection on reflective picture storybook is in the form of reflection questions related to reflection stories and journals that must be filled by students. The reflection in question is the process of comparing oneself with the characters in the story as a benchmark. Through the answers given by students, it will be known how far reflection can be done after reading and understanding the story in the book.

Based on this description, reflective picture storybook is a book that contains reading material that is suitable for elementary students and can improve the ability to think reflectively on students. Through stories and reflective questions, students are invited to reflect on themselves by comparing characters to stories. Then students are asked to fill in a reflection journal to measure students' reflection abilities.

II. METHOD

This study is a Research and Development (R & D). Borg & Gall said that the stages of R & D are as follows [14]: 1) Research and information collecting; 2) Planning; 3) Development of product design; 4) Preliminary field testing; 5) Main product revision; 6) Main field testing; 7) Revision of product II; 8) Operational field testing; 9) Final product revision; and 10) Dissemination and implementation.

According to Borg and Gall [14] R & D research in the field of education is a research model that aims to design new products and methods/procedures. Therefore, this research was conducted in stages: collecting information and reviewing the literature, designing products, developing, and conducting product validation to find out the quality of the products made.

The collection of preliminary information was done to find out the interest of elementary school students in illustrated storybooks for fourth grade students in Sleman Regency. The research subjects were grade IV teachers and 112 students consisting of 30 students of Gemawang Elementary School, 25 students at Margoagung Elementary School, and 57 Gentan Elementary School students. Subjects were taken randomly to represent sub-districts in the Sleman Regency area.

In accordance with the stages in R & D research, after collecting initial information, researchers conducted a literature review on reflective picture storybook. Then proceed with the drafting of the reflective picture storybook. After the product is prepared, expert judgment was carried out by material experts and media experts to measure product quality before conducting preliminary field testing. The product was said to be feasible if the minimum reaches "enough". If the assessment of material experts and the media got an average "enough" value, then the development of the product was said to be feasible and usable.

Data collection techniques were carried out through interviews, questionnaires, and literature studies. Interviews were conducted to class IV teachers. The questionnaire of need analysis was distributed to grade IV students, while the literature review was carried out to study theories related to product development.

III. RESULT AND DISCUSSION

A. Result

The results of interviews conducted on grade IV teachers indicated that the ability to think reflectively in students was not fully good and still needed improvement. Lack of
reflective thinking ability could be identified from how to solve problems in questions and everyday life. The teacher stated that many students were still confused when given questions in the form of problem solving. Students still could not reflect on the problems given in the questions. In addition, students also rarely asked questions after the teacher gave an explanation of a material.

Reflective thinking skills still needed to be improved in students because students were not yet accustomed to solving problems by thinking reflectively. Students were more familiar with theory and memorization in most subjects, whereas, in fact, subjects in schools were designed to train students to be able to solve problems both from questions and those that exist in everyday life.

These problems can be overcome, one of them is by training students to be able to think reflectively through habituation. In this study, related to students' interest in illustrated storybooks, the solution that could be given was to habituate by providing reading material in the form of reflective picture storybook, where the book presented illustrated stories along with reflection questions and reflection journals. This could be done to increase students' interest and motivation to read so that their reflective thinking ability could increase.

The students' interest in illustrated storybooks could be known from the questionnaire provided by the needs analysis, which consisted of five items, namely: 1) Do you like reading stories? 2) Do you prefer to read storybooks accompanied by pictures? 3) Do you have picture books at home? 4) Do you like it if your textbook is in the form of a picture book? and 5) Do you think textbooks in the form of picture stories are more interesting? Student answers were presented in the following diagram with a percentage form.

![Diagram of the students' answers](image)

Based on this diagram it can be seen that: 1) as many as 77% of children loved reading stories while as many as 23% of children did not like to read, 2) as many as 87% of children enjoyed reading storybooks with pictures while 13% of children did not like reading storybooks with pictures, 3) as many as 56% of children had illustrated storybooks at home, while 44% did not have picture books at home, 4) 63% of children liked their textbooks in the form of illustrated storybooks, while 37% did not like their textbooks in the form of illustrated storybooks, and 5) as many as 69% of children chose that textbooks with pictures were more interesting, while 31% were not interested.

The results of this study was a product validated by the media experts described in the following table.

### TABLE I. RESULTS OF MEDIA EXPERT ASSESSMENT

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
<th>Score</th>
<th>Indicator</th>
<th>Max. score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Media's physical condition</td>
<td>39</td>
<td>9</td>
<td>45</td>
<td>Very good</td>
</tr>
<tr>
<td>2.</td>
<td>Emotional impact</td>
<td>12</td>
<td>3</td>
<td>15</td>
<td>Good</td>
</tr>
<tr>
<td>3.</td>
<td>Media design visual principle</td>
<td>26</td>
<td>8</td>
<td>40</td>
<td>Good</td>
</tr>
<tr>
<td>4.</td>
<td>Total score</td>
<td>78</td>
<td>20</td>
<td>100</td>
<td>Good</td>
</tr>
</tbody>
</table>

From table, it can be explained that in the aspect of physical condition the media got a very good result. In the aspect of emotional impact, it got a good result, as well as in the principle aspects of visual media design. So the average total score of media results was in the “good” category.

Furthermore, the results of the validation by material experts are explained in the following table.

### TABLE II. TABLE OF THE RESULTS OF MATERIAL EXPERT ASSESSMENT

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
<th>Validity Score</th>
<th>Indicator</th>
<th>Max. score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Narrative text in the media</td>
<td>12</td>
<td>3</td>
<td>15</td>
<td>Good</td>
</tr>
<tr>
<td>2.</td>
<td>The language of reflective picture storybook media</td>
<td>16</td>
<td>4</td>
<td>20</td>
<td>Good</td>
</tr>
<tr>
<td>3.</td>
<td>The content of reflective picture storybook media</td>
<td>27</td>
<td>7</td>
<td>35</td>
<td>Good</td>
</tr>
<tr>
<td>4.</td>
<td>Suitability of material in the media with the learning objectives to be achieved</td>
<td>11</td>
<td>3</td>
<td>15</td>
<td>Good</td>
</tr>
<tr>
<td>5.</td>
<td>Media suitability with student characteristics</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>Very Good</td>
</tr>
<tr>
<td>6.</td>
<td>Aspects of children's literature</td>
<td>15</td>
<td>4</td>
<td>20</td>
<td>Good</td>
</tr>
<tr>
<td>7.</td>
<td>Aspects of learning</td>
<td>14</td>
<td>4</td>
<td>20</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Total Score</td>
<td>100</td>
<td>26</td>
<td>130</td>
<td>Good</td>
</tr>
</tbody>
</table>

**B. Discussion**

Reflective thinking activities according to research conducted by Song, [16] seen from reflective abilities, are divided into three, namely: a) learning methods, b) learning tools, c) environment. One of the environmental characteristics that support reflective thinking is to provide a reflective journal to write down students' positions so that students are aware of their weaknesses and strengths.
Agreeing with the explanation above, Herrel, Jordan, and Eby stated that being reflective is looking for information and solutions to problems that arise in class; identifying the strengths and needs of each student [17]. Based on this opinion it can be seen that being reflective can be used to identify the strengths and weaknesses that exist in each student. Thus, the teacher will find it easier to plan the learning that will be given next based on the needs of students.

The importance of reflective thinking ability is the meaning-making of an experience related to other experiences so that someone will learn continuously and have more experiences [18] [19]. This has an impact on determining better future actions. This is the same as the habit of reflective thinking. With a lot of reading stories and answering reflective questions, the ability to think reflectively will also be honed.

Another opinion from Dynoke & Harrison reveals that reflective thinking is an immediate action to solve problems that occur [20]. Based on this opinion it can be seen that reflective thinking can train students to solve problems that occur quickly. By thinking about the experiences that have occurred, students can determine quickly which actions to take.

Reflections done in learning are useful for those who are supervising or guiding. This not only gives ideas but also offers catharsis and reduces tension. [21] Based on this opinion it can be seen that creative thinking, especially those applied in learning, can be used as a supervisory and guiding function. The supervisory function is to monitor what things are still lacking in students while the guiding function is to evaluate and correct those things that are lacking. This will make students have an idea to improve what things are still lacking and will also make the relationship between teachers and students not too tense. Teachers and students will both know what deficiencies need to be fixed together.

Through reading, it means giving children the opportunity to make connections between reading and their lives outside of school [22]. Based on this opinion it can be seen that a child who reads a book will try to connect what he reads with him, not only to schools but also to the family and surrounding communities. This will bring a positive impact on the development of children's reflective thinking.

The advantage of reading a story is that it can bring the child into situations, dilemmas or choices, and utilize their experience and offer a powerful resource to teach almost all aspects of personal, social, health and economic aspects [23]. When viewed in terms of reflective thinking skills, personal aspects play an important role. In this case, a student when reading a storybook will be taught personal aspects where reflective skills can be one of them.

Stories accompanied by illustrations make the story easier to understand. Lukens states that images make verbal language visible and expand textual meaning; images allow art to be added as personal interpretations while in stories and texts that are not too many [24]. Based on this opinion it can be seen that images play an important role in clarifying language. The sentence written in a story will be more meaningful when accompanied by an image.

Mitchell also stated that illustrated storybooks can help children feel nurtured and loved. Children will also understand and accept themselves [9]. Based on this opinion it can be seen that illustrated storybooks are very instrumental in children's lives. Being nurtured and loved is a child's need that must be met by teachers and parents. Picture storybooks are one additional effort to help meet these needs. In addition, illustrated storybooks also help children understand and accept themselves. This also relates to reflective thinking. Thus, picture storybooks have two benefits, namely to meet the need for love and to be used to develop a reflective thinking process.

Picture storybooks can help raise children with the power and pleasure of imagination [9]. Picture storybooks will motivate students to be better than before. Children will also be happy and imaginative so that they are not aware that they are reflecting on how to learn something that makes themselves better.

IV. CONCLUSION

Based on the explanation already mentioned, it can be concluded that at the point of need analysis it can be seen that 1) as many as 77% of children loved reading stories while as many as 23% of children did not like to read, 2) as many as 87% of children enjoyed reading storybooks with pictures while 13% of children did not like reading storybooks with pictures, 3) as many as 56% of children had illustrated storybooks at home, while 44% did not have picture books at home, 4) 63% of children liked their textbooks in the form of illustrated storybooks, while 37% did not like their textbooks in the form of illustrated storybooks, and 5) as many as 69% of children chose that textbooks with pictures were more interesting, while 31% were not interested.

Starting from students' interest in picture storybooks, the reflective picture storybook product was compiled. A viable product is one that gets a minimum "enough" value. Based on the results of media validation, the total score obtained was 78 of the total maximum score of 100. Meaning the picture storybook reflective was included in the "good" category and was suitable for use in terms of media. Whereas the material validation results showed a total score of 100 from a maximum score of 130, meaning the reflective picture storybook was in the "good" category so it was declared feasible in terms of material.

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