

Character-based reflective picture storybook: Improving students' social self-concept in elementary school

A. Mustadi, S. Suhardi, E.S. Susilaningrum, R. Ummah, P.E. Wijayanti & M. Purwatiningtyas
Universitas Negeri Yogyakarta, Indonesia

ABSTRACT: This research aims: (1) to produce a character-based reflective picture storybook to improve social self-concept and (2) to determine the effectiveness of the character-based reflective picture storybook in improving the social self-concept. This research was R & D developed by Borg & Gall (1983). The subjects were the fifth grade students of elementary schools in Yogyakarta, Indonesia. The data collection techniques were interview, observation, scale, and questionnaire. Data was analyzed by a paired t-test and independent t-test at 0.05 significance level. The result of the research shows that: (1) the character-based reflective picture storybook has passed the criteria of feasibility to improve student's social self concept based on expert validation result, teacher response scale, and student response scale with very good criteria; (2) the character-based reflective picture storybook is effective to improve the social self-concept based on the t-test result with significance level < 0.05 , that is 0.000. Through pictorial stories and reflection activities developed in the character-based reflective picture storybook, elementary students can internalize the values of characters in a more fun way, acquire knowledge in accordance with the curriculum, and add insight into how to interact with others in the surrounding environment.

1 INTRODUCTION

Character education is an idea that has long been applied in the education system in Indonesia. Through the implementation of character education, noble characters that match the identity and characteristics of the Indonesian nation can be instilled early on in Indonesian children. By having these noble characters, it is expected that the children can have a good personality so that they can interact with the wider society in a global context.

Early character cultivating in children also plays an important role in the development of social self-concept. Therefore, by having a good character, every child can establish good social interaction with others in the surrounding environment. An important character in the globalization era is a person who not only becomes a life-long learner, but must also be able to play a role in relation to society (Zuchdi et al. 2010).

Children's social self-concept plays an important role in the development of a positive personality. However, reality shows that some students do not have a positive social self-concept. This is indicated by the involvement of students in violence or bullying, drug abuse, student gangs, and brawls. In addition, data from the Indonesian Children Protection Commission (*Komisi Perlindungan Anak Indonesia* or *KPAI*) through a rapid survey of 1,026 elementary, junior and senior high school students from nine provinces scattered throughout Indonesia, showed that the percentage of children who became perpetrators of violence reached 78.3%. Therefore, the formation of positive social self-concept in children through the implementation of character education requires more attention.

Piaget said that one of the obstacles faced in the formation of positive social self-concept through the implementation of character education in Primary Schools, is the lack of learning media that can facilitate the characteristics of elementary students who are still at the

concrete operational stage (Santrock 2011). During this time, the available learning media generally emphasizes the aspects of knowledge and skill. Learning media that can help the cultivation of character values are still very limited.

The development of the character-based reflective picture storybook, was based on the results of need analysis. The results show that in the implementation of Curriculum 2013, the availability of textbooks and learning media which support integrative-thematic learning is still limited. Teachers and students need character-based learning media that can make learning more meaningful and have a positive impact on the formation of students' social self-concept. Learning media featuring reflective illustrations and reflection activities such as the character based reflective picture storybook are not yet available in schools. Most of the learning media is still textbooks that have not reflected daily life and have not integrated character values.

The character-based reflective picture storybook was developed based on an implementation of reflective thinking (Gillespie 2005, Harisson & Dymoke 2009, Shambaugh & Magliaro 2006, Derwent 2015) in picture storybooks. The picture storybooks can be utilized in the formation of positive social self-concept. Picture storybooks can help children to learn to understand others, to understand the relationships between people and the environment, and to develop feelings. Therefore, picture storybooks can help students to understand how to interact with others (Mitchell 2003).

This research was conducted to produce an appropriate character-based reflective picture storybook to improve social self-concept and to determine the effectiveness of the media in improving the social self-concept of the fifth grade students of elementary schools in Bantul, Yogyakarta.

2 LITERATURE REVIEW

2.1 *Social self-concept*

Self-concept becomes a reference for individuals to clarify and understand themselves. Self-concept is a frame of reference for every individual to interact with his environment (Fitts 1971). Therefore, life experiences and the environment play a very important role in the development of individual self-concept (Laryea et al. 2014).

Social self-concept is one aspect of self—concept which relates to the interaction of individuals with their social environment. Social self-concept refers to the individual's view of the abilities to relate to others that cause behavioral change. Therefore, social self-concept will result in a change of behavior, when it is in a positive or negative direction (Bakhurst & Sypnowich 1995).

Social self-concept consists of three aspects. These three aspects include social acceptance, social competence, and social responsibility (Stump et al. 2009, Fernández-Zabala et al. 2016). Leary said that the first aspect is social acceptance. Social acceptance is an individual's perception of how he or she is accepted by the group and in social interaction (DeWall & Bushman 2011). The second aspect is social competence. Semrud-Clikeman (2007) points out that "Social competence is an ability to take a perspective concerning a situation and to learn from past experiences and apply that learning to the ever-changing social landscape." The third aspect is social responsibility. Social responsibility is the individual's perception of the demands and role of the individual in the social context whether it is with friends, family or society (Berman 1990).

2.2 *The character-based reflective picture storybook*

The picture storybook is composed of narrative text and illustrative images that are interconnected to convey the message of the story to the reader. Picture storybooks are books that convey messages through two ways, namely illustrations and writings. The illustrations and writings used to convey the message do not stand alone, but are a unity and are mutually supportive to express a message to the reader (Huck et al. 1987).

Picture storybooks are one of the media that can be utilized as a learning media in accordance with the characteristics of elementary students who are still at the concrete operational stage. Piaget (Santrock 2011) suggests that elementary students are still at a concrete operational stage, so that students can understand abstract concepts through concrete and specific examples contained in their daily lives.

In the context of the implementation of educational characters, picture storybooks can be utilized as the learning media that helps the formation of a positive social self-concept in students. Picture books help children to learn to understand others, to understand the relationships that occur between people and the environment, and to develop feelings (Mitchell 2003).

The character-based reflective picture storybook is a form of picture storybook development that implements reflective thinking process. Through the application of reflective thinking processes, students can reflect the pictorial story presented in the media with the students' daily lives. Reflective thinking is a meaningful process in which one will have new experiences, which will then relate to other experiences. This makes a person learn continuously so that the person will have more extensive experience and take better action moving forward. Furthermore, students developmental levels and teaching approaches through their experiences and their reflections on these experiences were determined (Derwent 2015).

The character-based reflective picture storybook gives stories that contain learning materials according to the curriculum reflected in the daily life of students, and children's stories that reflect the characters in the daily life of students. Through illustrations and stories based on character values, students can obtain role models from the characters, and can reflect stories and materials into daily life (Richter & Calio 2014, Turan & Ulutas 2016, Zaky 2016). Through the utilization of this media in the learning process, students' social self-concept is expected to develop.

3 METHOD

3.1 Approach

This research used the development research approach from Borg & Gall (1983). The character-based reflective picture storybook media was developed based on ten stages of product development, including: 1) research and information collecting, 2) planning, 3) developing a preliminary form of product, 4) preliminary field testing, 5) main product revision, 6) main field testing, 7) operational product revision, 8) operational field testing, 9) final product revision, and 10) dissemination and implementation.

3.2 Subjects

The subjects of this study were teachers and fifth grade students of elementary schools in Bantul District, Yogyakarta, Indonesia. The subjects of the preliminary field testing were fifth grade students and the teacher in three public primary schools.

3.3 Data collection techniques and instruments

Data collection techniques in this research included interviewing, observation, questionnaire, and scale. Instruments of data collection in this research included interview and observation guidelines for need analysis, self-assessment and peer assessment, product validation sheet of material expert and media expert, teacher response scale, student response scale, and social self-concept scale.

3.4 Data analysis techniques

Data on the results of the need analysis at the research and information collecting stage were analyzed by using the descriptive analysis technique. The feasibility of the character-based

reflective picture storybook on the product validation sheet of material expert and media expert, and the results of teacher response scales and student response scales were analyzed by conversion of scores into four quantitative categories Mansyur et al. (2015).

The effectiveness of the character-based reflective picture storybook in improving students' social self-concept was analyzed by t-independent and t-paired tests. The t-test was carried out after fulfilling the prerequisite tests, namely a normality test and homogeneity test.

4 RESULTS

4.1 Description of the developed product

The character-based reflective picture storybook developed in this study consists of several main components, namely: 1) a story matter that contains learning materials and reflection on everyday life; 2) reflective story-based values of the characters in the student's daily life; 3) reflective activity in the form of reflective questions, reflective stories, reflective journals for daily conditioning, and students' self-stories in the form of student ratings related to their social relationships. Story material in the form of material that is packaged in the form of stories and reflection of material in the daily life of students. A reflective story is a storybased on values of the characters that reflect in the daily life of students. Reflective questions are questions of preferred characters, the values found in the story, and how the student becomes a good person according to the person in the story presented. A reflective journal is structured to condition students. Self-story is a space given to students so that they can tell their experiences, and they can asses their self when dealing with others at school, home, and in the environment.

The character-based reflective picture storybook was designed and developed with Microsoft Word, Corel DRAW X7, Adobe in Design, and Adobe Photoshop programs. The developed medium was printed with Ivory paper for the cover and HVS paper for the content in A4 size (21 cm × 29.7 cm). The type of images in this media are cartoon images.

The learning materials that are packaged in the story are tailored to the theme and sub-theme on the fifth grade subject matter of the Indonesian Curriculum 2013. The character values reflected are adapted to the material and core competence of social attitudes.

4.2 Trial result

4.2.1 Results of material and media expert validation

Prior to trials in preliminary field testing, main field testing, and operational field testing, the character-based reflective picture storybook was validated by a material expert and a media expert. Aspects assessed by the material expert include aspects of substance, learning criteria, and story elements. Table 1 shows the results of the material expert assessment.

Based on the assessment of the material expert, the character-based reflective picture storybook was declared feasible as a learning media that can improve the social self-concept of fifth grade students of elementary schools. The total score of all aspects is 126, with an A, and is included in the very good criteria.

Aspects assessed by the media expert include aspects of clarity of usage instructions, media readability, material systematics, image display quality, color composition, narrative quality, format and layout. The table below shows the results of the media expert's assessment of the character-based reflective picture storybook.

Table 1. Results of the material expert assessment.

No.	Aspect	Total score	Value	Criteria
1	Substance material	11	A	Very Good
2	Lesson criteria	57	A	Very Good
3	The elements of the story	58	A	Very Good
The Whole Aspect		126	A	Very Good

Based on the assessment of the media expert, the character-based reflective picture storybook was declared feasible as a learning media that can improve the social self-concept of fifth grade students of elementary schools. Total score of the whole aspect is 120, with an A, and is included in the very good criteria.

4.2.2 Trial result of the product

After it had been declared feasible by the material expert and the media expert, the character-based-reflective picture storybook was tested in the preliminary field testing, main field testing, and operational field testing to determine teacher and student responses to the developed media. Media aspects that were well responded by teachers and students include aspects of material substance, learning criteria, story elements, and media appeal.

The result of the teacher response scale shows that the overall score of the media aspect is 160, with the value of A, and is included in the very good criteria. The result of the student response scale shows that the overall score of the media aspect is 72.2, with an A value, and is included in the very good criteria. The results of the teacher and student response scale indicate that the character-based reflective picture storybook was considered feasible to be tested in the operational field testing stage.

Table 2. Results of the media expert assessment.

No.	Indicator	Score total	Value	Criteria
1	Usage instructions clarity	4	A	Very Good
2	Media readability	10	B	Good
3	Material systematics	12	A	Very Good
4	Image display quality	31	A	Very Good
5	Color composition	12	A	Very Good
6	The quality of narration	16	A	Very Good
7	Formats and layouts	35	A	Very Good
Overall Aspect		120	A	Very Good

Table 3. Social self-concept of the control class and experiment class.

	Experiment class		Control class
	Pre-test	Post-test	
Approximately	174.04	190.08	186.43
Lowest Value	163	181	181
Highest Value	186	196	191

Table 4. Independent t-test results.

Group	Condition	df	Significance value	Explanation
Control	Post-test	52	0.000	Significant
Experiment	Post-test	49364		

Table 5. Paired t-test results.

Group	Condition	Significance value	Explanation
Experiment	Pre-test	0.000	Significant
	Post-test		

The operational field testing stage was carried out to determine the effectiveness of the product in improving the social self-concept of the fifth grade students. The table below shows the results of the social self-concept scale of the experiment class and the control class.

The effectiveness of the character-based reflective picture storybook in improving students' social self-concept was analyzed by t-independent and t-paired tests. The table below shows the independent t-test result.

Based on these calculations, the significance value is less than 0.05. Thus, it is concluded that there is a significant difference of social self-concept between the control class and the experiment class.

The table below shows the paired t-test results of the experimental self-concept social data on pre-test and post-test.

Based on these calculations, the significance value is less than 0.05. Thus, it can be concluded that there is a significant difference of social self-concept between pre-test (before using media) and post-test (after using media).

The independent t-test results and paired t-test results show that the significance value is < 0.05 . Therefore, the developed media storybook is effective in improving students' social self-concept.

5 DISCUSSION

The results of the validation of material experts, media experts, the teacher response scale, and the student response scale indicate that the character-based reflective picture storybook was declared feasible as a learning media that can improve the social self-concept of the fifth grade students of elementary schools. Media is declared feasible when it meets the minimum category of "good". After the analysis of the validation of the media expert and the material expert, the criteria of the character-based reflective picture storybook is "very good".

Based on validation results of the material expert, the character-based reflective picture storybook is included in the very good criteria. Besides the substance material and the lesson criteria, the material feasibility in the character-based reflective picture storybook is also reviewed from the elements of the story builder. The elements of the story builder include storylines, characterizations, themes, backgrounds, styles, and illustrations (Nurgiyantoro 2013, Tompkins & Hoskisson 1995, Lukens 1999). These elements determine the story in the character-based reflective picture storybook is interesting and meaningful for children.

Furthermore, the expert media validation obtained that the character-based reflective picture storybook is included in the very good criteria. Media feasibility in the aspect of formatting and layout is supported by some expert opinions which suggest that the format and layout is one of the components to be considered in the development of print-based media (Kemp & Dayton 1985, Nurgiyantoro 2013).

Once declared feasible as a media of learning by the material expert and the media expert, the character-based reflective picture storybook was tested at the stage of preliminary field testing and main field testing. The classroom teachers and the fifth grade students responded to the character-based reflective picture storybook media through a teacher response scale and a student response scale. The results of the teacher response scales and student responses indicated that the character-based reflective picture storybook was considered feasible to be tested at a later stage.

Feasibility of the character-based reflective picture storybook can be viewed from the media component consisting of component images and narrative text (Lukens 2003, Mitchell 2003, Huck et al. 1987). The existence of narrative text and images in developed media can overcome the limitations of elementary student in understanding abstract concepts as they are still at a concrete operational stage.

The story with the drawings will appeal to the children and is appropriate for elementary school age (Colwell 2013, Mourao 2016). Elementary students are in a concrete operational stage that requires something concrete like images to help understand the story's content. With the interesting images in a story, it will be easier to digest its meaning.

The result of operational field testing shows that the character-based reflective picture storybook is effective to improve students' social self-concept. Independent t-test results and paired t-tests show that the significance value is smaller or lower than 0.05 (0.000).

From the results above, it can be seen that the character-based reflective picture storybook can improve students' social self-concept. This is in accordance with the results of research from Richter, & Calio (2014) that by reading the story, it can improve students' self-concept. Students will be attracted by the media because the contents of the story can be applied in everyday life at home, in school, and in the community. In other words, students will understand how to deal with others at home, in school, and in society, so students have a positive social self-concept.

A character-based reflective picture storybook that can improve student's social self-concept is supported by Mitchell (2003), as picture storybooks help children to learn to understand others, to understand the relationships that occur between people and the environment, and to develop feelings. Thus, picture storybooks can help create a positive social self-concept by helping students understand relationships and how to establish good social relationships with others in their social environment.

Through the utilization of the character-based reflective picture storybook in the learning process, students' social self-concept can be developed. The character-based reflective picture storybook gives stories that contain learning materials according to the curriculum reflective of the students' daily life, and children's stories that reflect the characters in the daily life of students. Through illustrations and stories based on character values, students can obtain role models from the characters, and can reflect stories and materials into daily life (Richter & Calio 2014, Turan & Ulutas 2016, Zaky 2016).

6 CONCLUSION

The character-based reflective picture storybook developed in this research has passed the criteria of feasibility to improve students' social self concept based on the expert validation result, teacher response scale, and student response scale in the very good criteria. The character-based reflective picture storybook is effective to improve students' social self-concept. This is based on operational field testing that has significance value < 0.05 , which concluded that there is a significant difference in the social self-concept of students following learning using the character-based reflective picture storybook and students who do not use the character-based reflective picture storybook. Through pictorial stories and reflection activities in the character-reflected picture storybook, students can internalize the values of characters in a more fun way, acquire knowledge in accordance with the curriculum, and add insight into how to interact with others in the surrounding environment.

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