

Developing a Hand Puppet Book Media to Improve the Higher Order Thinking Skill and Character of Elementary School Students

Anwar Senen
Graduate Program of Primary Education
 Yogyakarta State University
 Yogyakarta, Indonesia
 senen@uny.ac.id

Pratiwi Pujiastuti
Graduate Program of Primary Education
 Yogyakarta State University
 Yogyakarta, Indonesia
 pratiwi@uny.ac.id

Tusta Rika Purwanti
Graduate Program of Primary Education
 Yogyakarta State University
 Yogyakarta, Indonesia
 tustarika.2017@student.uny.ac.id

Dea Resti Ameliandari
Graduate Program of Primary Education
 Yogyakarta State University
 Yogyakarta, Indonesia
 dearesti.2017@student.uny.ac.id

Abstract—This study developed the Hand Puppet Book media need assessment to improve the higher order thinking skill and character of the 4th and 5th grade students of elementary schools in Sleman. Preliminary data of the research and development collected through observations, interviews, and questionnaires. The sample of the study are 121 students of 4th and 5th grade of elementary schools, and 24 teachers of elementary school in Sleman. The findings in this study are (1) there are limitations in the use of learning media, (2) student's learning media that can support higher order thinking skill and characters, and (3) there is no optimal student's higher order thinking skill and characters. Therefore, there is need of the Hand Puppet Book media to be developed to improve student's higher order thinking skill and characters.

Keywords: *hand puppet book, higher order thinking skill, character, needs assessment*

I. INTRODUCTION

The application of HOTS (*Higher Order Thinking Skills*) is a 21st century demand that student must have. The HOTS is level of student's thinking process that are developed as a concept and cognitive method and learning taxonomy, such as problem-solving method, Bloom's taxonomy, learning taxonomy, teaching, and assessment [9]. Those high order thinking skills are measured through Bloom's Taxonomy which has C1-C6 levels. Bloom's taxonomy begins with remembering, understanding, applying, analyzing, evaluating, and creating [4]. Costa [10] explained that there are at least complex thought processes namely problem solving, decision making, critical thinking, and creative thinking.

Research and development of Hand Puppet Book focuses on two skill of higher order thinking skill there

are decision making skill, and creative thinking skill. Decision making skills is a skill to choose a choice from several alternative choices to achieve the goal [2]. The indicator of decision-making skill consists of understanding the problem, collecting information, making choices and making conclusions or evaluations of decision making. [1]. The indicators of creative thinking skills in this study are students can provide several answers to solving problems, looking for many different and new alternative answers.

Beside the skill that explicitly possessed by students, character education also needs to be integrated in learning. Lickona [5] said that characters consist of operative values or action values. The values that especially need to be developed in the culture of formal and non-formal education are 1) honest, 2) responsibility, 3) smart, 4) healthy and clean, 5) caring, 6) creative, and 7) mutual cooperation [8]. Besides to the seven characters, patriotism is also one of the characters emphasized in character education.

The character of responsibility is an attitude and behavior carried out by someone in carrying out their duties and obligations, which should be carried out on themselves, society, environment (natural, social, and cultural), nation and for the one almighty god [7]. Whereas the nationalism is a way of thinking and attitudes that reflect a sense of belonging and love their country, so that students have a sense of loyalty and attempted to maintain their national identity.

Developing a media that is adapted to the stage of child development is an effort to realize 21st century skills and character reinforcement. The developed media is a Hand Puppet Book which is a picture story combined with a hand puppet. Hand puppets are very enjoyable media for supporting student's skills [6].

Hand Puppet Book media is expected to increase higher order thinking skill and character.

To find out the situation and facts in elementary school regarding the development of high order thinking skills, character, and the need of learning media, observations, interviews and questionnaires were held at several schools. The data obtained is used as preliminary data for the development of Hand Puppet Book media. Hand Puppet Book media will be developed as an answer to the needs and solutions for learning problems.

II. METHODS

This research is a research and development by Borg&Gall [3] that include ten steps of development. But in this article is limited to first step that is research and information collecting. On this first step, observation of learning, teacher interviews, and the distribution of need assessment questionnaires implemented to teachers and students. The sample of this study consist of 24 teachers and 121 students of the fourth and fifth grade elementary school in Sleman.

Study analysis was conducted to determine the need of learning media and problems of higher order thinking skill and character. The data obtained are qualitative data which form: 1) result of learning observation, 2) students and teacher responses to higher order thinking skill and character, and 3) the need of learning media. Data collection techniques use non-participant observations, semi-open structured interviews, and questionnaires. The data analysis technique used is the descriptive qualitative.

III. RESULTS AND DISCUSSION

This study describes the results of the analysis of the problems of higher order thinking skills and character of elementary school students and the need of Hand Puppet Book media. The skills analyzed in higher order thinking skill are decision making skill and creative thinking skill. Analysis of the development of these two skills using observation, interview, and questionnaire techniques based on sub-variables in data collection. Sub-variables for HOTS are listed in "Table 1".

TABLE I. HIGHER ORDER THINKING SKILL

No	Development of student's higher order thinking skill	
	Sub Variable	Technique
1.	Learning process	Observation
2.	Teacher perception of student's decision making skill	Interview, questionnaire.
3.	Teacher perception of student's creative thinking skill	Interview, questionnaire.
4.	Student ability of decision making skill	Observation, questionnaire.
5.	Student ability of creative thinking skill	Observation, questionnaire.

Based on "Table. 1", the data obtained is not only based on one technique. The reason is for obtaining data validity. Guidelines for analysis on "Fig. 2" and "Fig. 3" also uses the same technique.

In addition to the higher order thinking skills analysis guidelines, guidelines for analyzing the characters are set out in "Table. 2". The development of the characters analyzed in this study are responsibility and nationalism.

TABLE II. CHARACTER DEVELOPMENT

No	Character Development of Responsibility and Nationalism	
	Sub Variable	Technique
1.	Character education	Observation, interview, questionnaire.
2.	Teacher perception of student's responsibility character	Interview, questionnaire
3.	Teacher perception of student's nasionalism character	Interview, questionnaire
4.	Student's responsibility character	Observation, questionnaire.
5.	Student's nasionalism character	Observation, questionnaire.

The table "Table. 2" shows that the data acquisition of students' character development is taken from the perspective of the teacher and the students, and the overall application of character education.

Hand Puppet Book media are learning media that are developed to improve the higher order thinking skill and characters. Hand Puppet Book media are divided into two bases by adjusting needs in the field. That two bases are Hand Puppet Book based on health literacy and hand puppet book based on local wisdom.

TABLE III. HAND PUPPET BOOK MEDIA

No	The Need of Hand Puppet Book Media	
	Sub Variable	Technique
1.	The need of learning media	Interview, questionnaire.
2.	Learning and reading material availability	Observation, interview, questionnaire.
3.	Student interest of reading	Questionnaire
4.	Student's favourite book	Questionnaire
5.	Learning process uses media	Observation, interview, questionnaire.
6.	Student's knowledge about local wisdom in Turi	Questionnaire
7.	Student's knowledge about self-health	Questionnaire
8.	The need of learning media based on healthy literacy	Observation, interview, questionnaire.
9.	The need of learning media based on local wisdom	Observation, interview, questionnaire.

Before knowing the need of Hand Puppet Book Media, table "Table. 3" shows that it is necessary to

know the needs of learning media, the students' interest in media, and the students' knowledge of self-health and local wisdom. The goal is that the media developed can be on target and in accordance with needs.

The results of data analysis obtained based on the guidelines that have been arranged will be described qualitatively as follows.

A. Observation

Observation was conducted on the learning of 4th and 5th grade of elementary schools. The observation took place during the planning and the implementation using the teachers' book and the students' book. In the planning part, things that were observed were related to the learning tools prepared by the teacher, including the media used in the learning process. The implementation part consists of opening, core, and closing activities.

The results showed that in the planning section, not all of the teachers who were the object of the observation did not prepared the lesson plan (RPP) and not all of the teachers used learning media during the teaching process. Most teachers entered the classroom by bringing teacher's book and relying on or using the students' book as the main learning sources. With the result that this had become one of the factors that causes learning to be less effective because the readiness in the lesson planning was not optimal.

Implementation part was the core part of learning process. In the opening activity, six of twenty four teachers gave motivation to their students. However, all of the teachers had not made the appropriate apperception to measure the students' initial abilities. Whereas in the core activity, the teachers had delivered the material in accordance with the prepared lesson plan, but the teachers had not used the learning sources that involve the students' environment so that the learning process became less meaningful. In addition, in the core activity all teachers did not use learning media that supports the learning activity.

During the learning process, the results of the observation showed that the students' high order thinking skills were still not prominent. It was seen when the teacher gave questions to the students. When the teacher gave a question, only one or two students answered the question. Besides, the teachers were not optimal in shaping students' character due to the lack of effective media for character building.

Based on the observation's results, it can be concluded that 1) the teachers have not used the learning media so that learning becomes less meaningful, 2) students' higher order thinking skill is still not prominent, 3) the teachers have not been able to encourage the optimization of the students' character.

B. Interview

Interview was conducted with twelve teachers of 4th and 5th grade. The aspects discussed in the interview were about the need of learning media like Hand Puppet Book, the teachers' perceptions of the character of responsibility and nationalism, and the teachers' perception of students' decision-making abilities and creative thinking skill.

The result of the interview shows that the students' interests in reading at school was not well-developed due to the reading materials owned by school were less diverse. Moreover, learning media like textbook were still not sufficient for the students' needs. Books owned by the schools were still in the form of old books that were not in accordance with existing developments.

It is also known, the teachers had not optimally in using the media during the learning process. The teachers only used media like the teacher and students' book and textbooks that were available at school. Those books only contain teaching material with a few pictures to explain the materials to the students. There was no media that supports the learning of high order thinking skills and character.

Based on the development base of the specified Hand Puppet Book, learning based on local wisdom cannot be carried out optimally. On the other hand, the teacher revealed that local wisdom is important to apply in learning, but the teacher has not been able to develop media based on local wisdom. These obstacles also occur in the application of self-health. Based on the results of the interview, it can be concluded that there are limitations to the learning media so that the needs of teachers and students have not been met.

C. Questionnaire

In this study, data collection was also carried out through a questionnaire given to 121 elementary school students. The percentage of results can be seen in the list below.

- 1) 40,056% of students are not accustomed to reading. This affects student's interest in reading.
- 2) 100% of students stated that they liked reading books that were stories rather than textbooks.
- 3) 93,95% students state that book is very important in the learning process.
- 4) 89,08% students feel that the media currently used by teachers has not been able to make them think more creatively.
- 5) Only 7.25% of students know the potential that exists in Turi.
- 6) Student's decisions making skill still need to be improved, because it only reaches 57.64%.
- 7) 62.5% of students already have good character of responsibility. Students begin to get used to doing obligations.

8) 100% of students agree if developed an interesting media with story books based on local wisdom.

The results of the needs analysis above show the limitations and potential of higher order thinking skills, character, and learning media. Beside to the data above, it was found that the need of books is very necessary, especially in developing the character and skills of the 21st century students possess. Students need learning media like picture books that are designed to be interesting by using stories based on local wisdom and health literacy to enrich knowledge, enhance creative thinking skills.

The student's ability to make decisions, most students can determine their own what should be done without the guidance of others, so that almost half of students can't make their own choices. Beside In addition, according to the teacher, students' skills in making decisions still need to be improved. Teachers assume that the limited learning media that contain steps of decision-making skill are still rarely found. This has an impact on students who are still having difficulty in taking a stand based on what they encountered.

The diversity of books owned by schools is still limited. The limitations of books owned by schools can affect student's interest in reading. Even though the data obtained shows that more than 50% of students have an interest in reading, the ability to make decisions and the character of responsibility, the data still does not show the maximum of these aspects.

IV. CONCLUSION

Based on a qualitative descriptive analysis of the need of Hand Puppet Book media to improve higher order thinking skills and characters, several conclusions are obtained namely (1) there are limitations in the use of learning media, (2) student's learning media that can support higher order thinking skill and characters, and (3) there is no optimal student's higher order thinking skill and characters. Therefore, Hand Puppet Book media is needed to improve student's higher order thinking skills and character.

ACKNOWLEDGMENT

This research supported by the graduate school team grant that was given by Ministry of Research, Technology, and Higher Education Republic of Indonesia. Authors would like to express thank for the grant and support for this research.

REFERENCES

- [1] Asmani, Jamal Ma'Mur, 7 tips aplikasi pakem (pembelajaran aktif, kreatif, efektif, dan menyenangkan). Yogyakarta: Rajawali Press. 2014.
- [2] Beyer, B.K. *Teaching thinking skills: A handbook for elementary school teachers*. Boston: Allyn and Bacon. 1991.
- [3] Borg, W.R. and Gall, M.G, *Educational research: An Introduction*. New York: Longman. 1983.

- [4] Istiyono, E., Djemari Mardapi, and Suparno, "Pengembangan tes kemampuan berpikir tingkat tinggi fisika (pysthots) peserta didik SMA" *Jurnal Penelitian Dan Evaluasi Pendidikan*, 18(1), 1–12. 2014.
- [5] Lickona, T, *Character matters (persoalan karakter): Bagaimana membantu anak mengembangkan penilaian yang baik, integritas, dan kebajikan penting lainnya*. Jakarta: Bumi Aksara. 2012.
- [6] Mahendra, "Pengaruh Model Role Playing Berbantuan Boneka Tangan terhadap Keterampilan berbicara siswa kelas V. *E-journal PGSD Universtas Pendidikan Ganesha Mimbar PGSD Vol. 5 No.2*, 2017.
- [7] Poerwati, L.E., and Amri, S, *Panduan memahami kurikulum 2013: Sebuah inovasi struktur kurikulum penunjang pendidikan masa depan*. Jakarta: Prestasi Pustaka Publisher. 2013.
- [8] Samani and Hariyanto, *Pendidikan karakter*. Bandung: PT. Remaja Rosdakarya. 2012.
- [9] Saputra, H, *Pengembangan Mutu Pendidikan Menuju Era Global: Penguatan Mutu Pembelajaran dengan Penerapan HOTS (High Order Thinking Skills)*. Bandung: SMILE's Publishing. 2016.
- [10] Yulianti, L, "Efektivitas bahan ajar ipa terpadu terhadap kemampuan berpikir tingkat tinggi siswa SMP" *Jurnal Pendidikan Fisika Indonesia*. No. 9, pp. 53-57, January 2013.