NATURAL SCIENCE BIG BOOK WITH BADUY LOCAL WISDOM BASE MEDIA DEVELOPMENT FOR ELEMENTARY SCHOOL

E. Andriana[1]*, A. Syachruroji[1], T. P. Alamsyah[1], F. Sumirat[2]

[1]Faculty of Teacher and Education, Universitas Sultan Ageng Tirtayasa, Indonesia
[2]University of Islamic "45" Bekasi, Indonesia

ABSTRACT

Big Book is an especially characterized storybook that being enlarged, both the text and the pictures and designed as interesting as possible so it could motivate the students in learning the lesson in school. Big Book media in this research was developed based on local wisdom in Baduy as the effort to introduce the local wisdom values in Baduy custom area, so it may grow the love towards the local custom. The benefit of using the local wisdom based Big Book is the teacher can easily interest the students to focus on the story that will be read and make it easier for the students in understanding the material because the contents of the material are related directly to the student's daily life. From the data that have been gathered, there are 79.7% to learning material expert validation and 83.41% to learning media validation. So, it can be concluded that Big Book media is appropriate to be used in the learning process.

INTRODUCTION

Education is a systematical process that happened all the time to lift prestige and dignity of the human being whole. It can be seen from the education philosophy, which is: (1) affective that reflected in the quality of faith, etiquette, aesthetic, and good moral and character.; (2) cognitive that reflected in thinking capacity and intellectuality to dig the knowledge and develop it and also mastering the technology; and (3) psychomotor that reflected in the ability to develop technical and practical skill (Depdiknas, 2006). As a whole thing all those philosophies rooted on how to prepare the students to be able to live their life well, so in this case, education become a strategic ride to develop the student's potentials.

The policy to increase the quality of education is aimed at the achievement of education quality that determined by the government in National Education Standard (SNP). SNP include the component of a content standard, process standard, passing competence standard, educators and educational staff standard, infrastructure standard, management standard, financial standard, education scoring standard. The achievement of those standards is used as the base to do the scoring towards the performance of education unit and program, started from Early Childhood Education (PAUD), elementary school, middle school, non-formal school, to high school (Depdiknas, 2006).

In the elementary school, reading ability must be watched carefully. According to Dahlani & Rahma (2016), reading is one of the language skill besides writing, listening, and speaking. Reading is an active receptive activity where the reader will identify the symbols of the writing actively.

*Alamat korespondensi:
E-mail: andriana1188@untirta.ac.id

Besides, reading has a very important social role in human life. First, reading is a communication tool which needed in a cultural society. Second, the reading material that resulted in every age in history mostly affected by developed language social background. Third, as far as the history ever recorded, reading has resulted in different social classes (Hartati, 2014).

Related to the reading skill in elementary school, reading lesson must be suited to the level according to the low and high class. For the low-class students, the reading phase is beginner reading. Beginner reading in low-class students is a foundation of quick reading, extensive reading, and understanding reading phase. To achieve that, the teachers must really sharpen the beginner reading skill students.

According to Tarigan (2008), reading is a process that done and used by the readers to get the message that the writer wanted to deliver by words media or writing language. Harjasujana, et al. (2003) stated that reading is a result of interaction between perceptions towards the symbols that represent the language through language skill that the readers have and their knowledge about their surroundings. Basically, reading is an activity to find the messages or information that wanted to be delivered by the writer through words media or writing.

Reading ability of elementary students in Indonesia is still categorized as low compared to the other countries. It can be seen in the result of PIRLS (Progress in International Reading Literacy Study) research that has been done by IEA (The International Association for The Evaluation of Educational Achievement) which stated that from 45 countries that become the samples of the research, Indonesia is sitting in the 41st (Litbang, 2013). The student's reading motivation can be stimulated by interesting learning media in the form of pictures or big text (Najiah, A., et al. 2016).

One of the causes of the low reading interest of Indonesian people is the low reading culture in Indonesia. The low reading skill in elementary students in Indonesia must be treated seriously. If a student cannot read well, then the student will face the difficulties in understanding the reading material. It surely will slow the reading activity and understand the material in the next phase and the other language aspects like writing.

Besides, Sukmawati (2016) stated that another problem in reading like letter introduction, words understanding, terms, reading structure introduction, interpretation towards reading the material, interpreting implicit mean in a reading material, and determining the main topic and the explanative topic in a paragraph.

Suyanto (2007) stated that there are some things that may help in reading lesson, which is: (1) using pictures as a helping tool; (2) giving questions; (3) shows the title and asked the students to guess it; and (4) the use of short sentences that will confuse the students. Those aspects must be fulfilled, so the student's reading ability will get better.

To fix the student's reading ability a learning media that may increase the student's reading interest. In elementary school learning process, media is very important. Media affected the interest of students to study. Media helps the teachers in delivering the material, so the students will understand the material easier.

Mahbub, et al. (2016) stated that learning is a tool to outline the learning process. While Association of Education Communication Technology (Mahnun, 2012), interpret media as all kind of forms that can be used in message delivering process.

Media is all kind of physical tools that used to deliver the content of the learning material. In this understanding, books/modules, tape recorder, cassettes, video recorder, camera video, television, radio, films, slides, photos, pictures, and computer are learning media (Taufiq, et al. 2014). It means media is related to the mediator that functioned to channel the messages and information from the source that will be received by the receiver of the messages that happened in the learning process.

One of the media that can increase the interest and reading skill of the students is Big Book. According to Suyanto (2007), Big Book is one of the media that liked by the children and can be easily made by the teachers. This big sized book usually used for low-class students and the contents are a short story with big text with colored pictures.

According to Puspaningrum (2015), Big Book has the excellence for its big size so it can handle the readability of the students in class. Next, Anggraeni (2016) stated that Big Book is an especially characterized storybook that being enlarged, both the text and the pictures, so it can make the reading together activity between the teacher and the students become possible. Big Book can be a reading media through reading together activity and also can be a good media in understanding reading because it can make the students work together in giving the means of the words in it.

According to Astari, et al. (2016), the use

of Big Book media will be very well done in indoor class activity. Big Book is a book that approximately sized 40x30cm with interesting colored pictures and large text, so it will be clear enough to be seen together by the children.

Big Book appearance must be able to grow the reading interest in students. Setiawati, et al. (2013), stated that children love to have stories and interesting, colorful pictures in their books. They seemed to not realize that they are studying while reading the story books. Story books are more interesting and easier to understand by the children.

Based on the research that has been done by Yuniati (2014) about the use of Big Book in elementary school in low class resulted in a conclusion that the use of Big Book may increase the student's activeness and increase the beginner reading ability in low-class students. So, the development of Big Book media is very good in order to increase the reading ability of low-class students.

Big Book not only pressed on reading skill and writing of the students but also developed a good behavior and character of the students. It gained from the mean and message that conducted in a story that written in Big Book. "The Big Book approach attempts not only to teach various reading strategies and concepts about print but also to impart them in a manner that is meaningful and interesting to the young learner" (Nambiar, 1993).

In the process of developing student's character, the learning material will be more if connected to the local wisdom. Local wisdom can be understood as a human's effort by using their thought to act towards something, object, or happening in a certain space. (Ridwan, 2007).

Local wisdom is a value of life that inherited from a generation to the next generation in religious, culture or custom form that normally shaped in spoken form in a social system of a society.

According to Thamrin (2013), local wisdom is a system in a social, politic, culture, economy, and environmental order that live in the middle of local society. The characteristic that always sticks in traditional wisdom is the dynamic characteristic, continuous, and can be accepted by its community.

While according to Fajarini (2014), local wisdom is a way of life, knowledge and also any living strategies that have been done by the local society in answering the problems in fulfilling their needs.

The existence of local wisdom is a result of adaptation process in a very long time towards an environment that usually inhabited or where interactions often happened.

METHODS

The method that used in this research is Research and Development (R&D). R&D method is a method that used to create a certain product and test the effectiveness of the product. (Sugiyono, 2009).
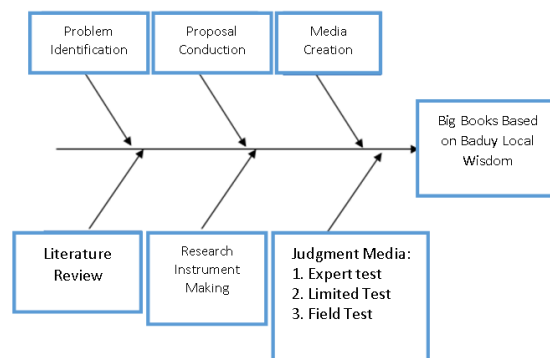

Figure 1. Steps of R&D Research

Steps in Media Judgment Process consisted of:
1. Expert test is a media decency scoring process that done by experts and practitioners in elementary school, so the media can be well used in the learning process in elementary school.
2. Limited Test is a test conducted in the student samples that will be tested with Big Book.

RESULTS AND DISCUSSION

The result of the research of this learning media development has been done based on a development procedure in 4D (*four*-D) model that simplified to 3D (*three*-D) that has been determined in the previous chapter which is doing definition, designing, and developing.

Description of Learning Media Making
Defining

From the result of the definition of natural science subject, the data was gathered in the form of curriculum and syllabus in fourth and fifth grade which is curriculum 2013 that will be used as a media development guide. Besides, media making device, media usage and natural science material that will be developed is also gotten.

Learning media that was created contained natural science subject material for the first

semester. It was done to suit the curriculum and syllabus in the elementary school with Baduy local wisdom material.

Based on the curriculum and syllabus of fourth grade in elementary school and the time implementation the basic competence that has been gotten are 3.7 Describing the relation between the natural source with the environment, technology, and society, 4.6 Serving the report about natural sources and its usage by the society. While the curriculum and syllabus of fifth-grade students, the basic competence are 2.2 Describe the dependency of human and animals to green plants as a food source and 3.2 Identify plant's self-adjustment with the certain environment to stay alive.

After the developed material has been determined then the next step is doing literature review and field study to gather the material and objects about the environment in Baduy society.

Designing

After getting the ingredients to create a learning media in defining phase, then the researcher designing Big Book with Baduy local wisdom base learning media.

Developing

The creation of Big Book with Baduy local wisdom base learning media was done manually, where every picture served in the content of this Big Book are self-created pictures by using crayon or color pencil. Then all pictures and narration text scanned, and the next phase is printing process on the A3 paper. After all the picture have been printed, then they were booked using the spiral ring.

In this phase, learning media that has been created is developed according to the desired Big Book with local custom media through product validation process. The validation process is done by material expert lecturers, media expert lecturers, and elementary teachers as the education experts.

Based on the learning experts' validation score data analysis criteria table the score is 139.5 in 35 points of the question. The average score is 3.985 with final percentage score as many as 79.7% included in "Appropriate" category.

Based on the learning experts' validation score data analysis criteria table the score is 171 in 41 points of the question. The average score is 4.17 with the final percentage score as many as 83.41% included in "very appropriate" category. So, it can be concluded that Big Book media is appropriate to be used is learning.

Table 1. The Result of Learning Material Expert Instrument Validation

Scoring Aspects	Validator I	Validator II	Average Score
Content Appropriateness	75	62	68.5
Serving Appropriateness	39	32	35.5
Contextual Scoring	37	34	35.5
Total	151	128	139.5
Average Score	4.31	3.66	3.98
Score Percentage %	86.3 %	73.2 %	79.7%

Table 2. The Result of Media Experts Instrument Validation

Scoring Aspects	Validator I	Validator II	Average Score
Graphic Appropriateness	114	136	125
Language Appropriateness	38	54	46
Total	152	190	171
Average Score	3.71	4.63	4.17
Score Percentage %	74.2 %	76 %	83.41%

From the result of media appropriateness test the researcher hopes that Big Book media can be one of the learning media alternatives that will motivate the students and impact the increase of student's study achievement especially in natural science lesson in elementary school, it is suitable for the research conducted by Handhika, J (2012) who stated that learning media basically increase the student's learning motivation and study achievement. Visual media in the form of pictures (Big Book, comic) have the function to increase the study result beside to increase the motivation, and it was already proved in research conducted by Fatimah & Widiyatmoko (2014) who showed the study result of the students that rise in the middle category.

CONCLUSION

Based on the research question in Big Book media development with Baduy local wisdom base in a natural science subject, then it can be concluded that:

Big Book media with Baduy local wisdom

development in natural science subject based on 4D model development that has been adapted into 3D which are define, design, and development. The test was done in the students in fourth and fifth grade in elementary school. The media product that has been developed in this research is appropriate to be used in elementary school that apply curriculum 2013 because it is already fulfilling the product success indicators.

Big Book with Baduy local wisdom base media appropriateness in natural science subject for the fourth grader was gotten from the scoring result from material experts, media experts, and education experts. The score result of material experts is 3.98 in average with 79.7% included in "appropriate" category. The scoring result of media experts is 4.17 in average with 83.41% included in "very appropriate" category.

Based on the research result and Big Book with Baduy local wisdom base media development, the writer gives a suggestion which is Big Book with the Baduy local wisdom base media development product can be used as an alternative choice in natural science subject learning.

REFERENCES

Anggraeni, K. (2016). Efektivitas metode steinberg dengan media big book terhadap keterampilan membaca nyaring. *Jurnal Cakrawala Pendas*, *2*(1).

Astari, N. L. P. M., Pudjawan, K., & Antara, P. A. (2016). Pemanfaatan media big book untuk meningkatkan kemampuan berbahasa inggris anak kelompok b2 dalam kegiatan ekstrakurikuler. *Jurnal Pendidikan Anak Usia Dini*, *4*(2).

Dahlani, A., & Rahman, R. (2016). Pengaruh strategi rap (read–ask–paraphrase) dan strategi kwl (know–want to know–learned) terhadap kemampuan membaca pemahaman siswa sekolah dasar kelas iv. *Jurnal Pendidikan Sekolah Dasar*, *2*(1), 11-25.

Fatimah, F., & Widiyatmoko, A. (2014). Pengembangan Science Comic Berbasis Problem Based Learning sebagai Media Pembelajaran pada Tema Bunyi dan Pendengaran untuk Siswa SMP. *Jurnal Pendidikan IPA Indonesia*, *3*(2).

Handhika, J. (2012). Efektivitas media pembelajaran IM3 ditinjau dari motivasi belajar. *Jurnal Pendidikan IPA Indonesia*, *1*(2).

Harjasujana, A. S., & Damaianti, V. S. (2003). Membaca dalam Teori dan Praktik. *Bandung: Mutiara*.

Indonesia, T. H. U. P. (2014). Efektivitas metode steinberg dalam pembelajaran membaca permulaan di sekolah dasar. *pedagogik-pendas*, *451*.

Kasihani, K. E. (2007). Suyanto. *English For Young Learners. Jakarta: PT. Bumi Aksara*.

Kemdikbud, P. P. P. B. (2013). Survei Internasional PISA (Programme for International Student Assessment).

Mahnun, N. (2012). Media Pembelajaran (Kajian terhadap Langkah-langkah Pemilihan Media dan Implementasinya dalam Pembelajaran). *ANIDA'*, *37*(1), 27-34.

Najiah, A., Harun, C. A., & Silawati, E. (2016). Penggunaan Media Story Book dalam Pembelajaran Reading Comprehension di Kelas III Sekolah Dasar. *Jurnal PGSD Kampus Cibiru*, *4*(4).

Nambiar, Mohana. (1993). Early Reading Instruction-Big Book in the ESL Classroom. *Journal The English Teacher,* 22 (2), 1-7.

Nasional, L. P. M. P. (2006). Standar Kompetensi Lulusan Untuk Satuan Pendidikan Dasar Dan Menengah.

Puspaningrum, R. D., & Gunansyah, G. (2015). Pengaruh penggunaan media big book terhadap kemampuan literasi informasi siswa sekolah dasar. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, *3*(2).

Ridwan, N. A. (2007). Landasan keilmuan kearifan lokal. *Jurnal Studi Islam dan Budaya*, *5*(1), 27-38.

Setiawati, I. K., & Rusilowati, A. (2013). Pembuatan Buku Cerita IPA yang Mengintegrasikan Materi Kebencanaan Alam untuk Meningkatkan Literasi Membaca dan Pembentukan Karakter. *Jurnal Pendidikan IPA Indonesia*, *2*(2).

Sugiyono, P. D. (2009). Metodologi Penelitian Kuantitatif Kualitatif dan R&D.

Sukmawati, D., & Cahyani, I. (2016). Efektivitas model concentrated language encounter (cle) dalam meningkatkan keterampilan membaca siswa sekolah dasar. *Jurnal Pendidikan Sekolah Dasar*, *2*(1), 26-38.

Tarigan, H. G. (2008). Menulis: Sebagai suatu keterampilan berbahasa.

Taufiq, M., Dewi, N. R., & Widiyatmoko, A. (2014). Pengembangan Media Pembelajaran IPA Terpadu Berkarakter Peduli Lingkungan Tema "Konservasi" Berpendekatan Science-Edutainment. *Jurnal Pendidikan IPA Indonesia*, *3*(2).

Thamrin, H. (2013). Kearifan Lokal dalam Pelestarian Lingkungan (The Lokal Wisdom in Environmental Sustainable). *Kutubkhanah*, *16*(1), 46-59.

Yuniati. (2014). *Peningkatan keterampilan membaca permulaan melalui media big book siswa kelas ib sdn mangiran kecamatan srandakan* (Doctoral dissertation, PGSD).

Zubaidillah, M. M., Kirana, K., & Poedjiastoeti, S. (2016). Development of stad cooperative based learning set assisted with animation media to enhanche students'learning outcome in an islamic junior high school. *Jurnal Pendidikan IPA Indonesia*, *5*(2).