

# The Need of Convertible Book Media

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**Abstract**—The use of appropriate learning media is one of the supporting aspects of effective learning activities. However, the availability of instructional media which can support the effectiveness of classroom learning is still inadequate. This study aims to determine the needs of teachers and students to the Convertible Book media in elementary school. The subjects of this study are teachers and students in SD Negeri Purwobinangun, SD Negeri Salakan Lor and SD Negeri Pakem in Sleman Regency. This research is a survey research. Data were analyzed using descriptive analyses techniques through interview and observation. The results of this study indicated that in the implementation of the 2013 curriculum, teachers are still constrained by the availability of appropriate instructional media used to improve students' analytical skills. Teachers and students needed the development of Convertible Book media, thus, the development of print media based on Scientific Approach needs to be done in order to become a medium of learning in Curriculum 2013.

**Keywords**—*convertible book, media, elementary school*

## I. INTRODUCTION

Learning activities in Curriculum 2013 require students to develop their knowledge actively. Teachers are required to be able to facilitate and motivate students. Teachers are required to seek the information actively and make new innovations in learning. The Curriculum 2013 emphasizes student-centered learning, so teacher-learning innovation should enable students to explore their abilities actively.

The application of the Curriculum 2013 is using Scientific Approach in its learning activities. This approach helps teachers to implement student centered learning. The application of Scientific Approach essentially emphasizes the students 'skills in the learning process however students' knowledge can increase by extracting information from the concepts they find in learning. Teachers play a role to guide and stimulate students. Teachers should be able to create the effective learning by integrating subjects

with the improvement of High Order Thinking Skill (HOTS) as demanded by the Curriculum 2013.

The competence that students should upgrade is HOTS, which this competence is important for students especially for high grade students. This competence is requiring students in order to compete in the global world. The faster the growth of the eating age will be more difficult to challenge the existing. Students need to develop their thinking ability to keep up with the times and to fulfill the demands of the times. Higher Order Thinking Skills, such a logical thinking, critical thinking, and reasoning skills are basic skills for daily life, as well as important aspect of teaching and learning [1] it is arguing that HOTS is an important aspect of learning activities. One of the capabilities included in HOTS is the ability to analyze.

Analyze is the fourth capability aspect of the six aspects [2] is important to be possessed by the students however they can move on to higher cognitive aspects. Analyze is the ability of the students to describe a material or state into more detail parts and able to find the relationship between the parts or factors that one with the other [3]. Another opinion also says that analyzing involves the process of breaking the material into small pieces and determining how the relationships between parts and between each part and the overall structure. From both opinions, it is clear that the ability to analyze is the ability to decipher the material into more detailed parts and determine how the relationship between one part with another.

The application of integrative thematic learning and the increase of HOTS in schools faced some difficulties, such as textbooks used during this time are still limited in the material. The government actually has given the book teachers and books students as a supporter of the learning process. Teacher book and student book have an important function in the learning process as mandatory handling both teachers and learners as a guide and as a reference activity of learning process in class [4]. Teacher's books and student books become important supporters of learning, but the scope of the material is still general, so the material presented is too shallow. Limitations of the material in the book supporting the

teacher required to develop a more complete learning material.

Not only that, other problems of students who are less active in learning activities make learning less effective. Effective learning activities that can stimulate active students in it cannot be separated from the role of teachers and the use of interactive and innovative learning media. As mentioned in the study, that teachers still need guidance and mentoring in developing the media, as well as carrying out lessons in accordance with the demands of the Curriculum 2013 [5][6].

One stimulus that teachers should give to students to be more active in the learning process is the use of media. Creative and interactive learning media can improve students' learning activity and interest. Students will be more interested in learning with the media than conventional learning without media. The right media in learning activities with the Curriculum 2013 is a Scientific Approach-based medium, so teachers can easily motivate and activate students with the media.

The media in the learning activities generally means the tools and materials used in the teaching or learning process. More details, Media are the means of transmitting or delivering messages and to achieve effective instruction [7]. Media is the way teachers convey messages to students in learning activities to streamline instruction given by the teacher. Effective learning activities will create optimal results.

There are various types of media, media based on its category are divided into 5, human-based media, print-based media, visual-based media, audiovisual-based media and computer-based media [8]. Learning media can present objects clearly so that students are active in building their thoughts. The type of effective learning media used in learning activities, one of which is print or print media. Print media used as a means of delivering information, and as a companion book that serves to complement the limitations of teacher books and student books.

Media convertible book is a type of print media that has not been developed in Indonesia and adapted from abroad. Judging from its type, media Convertible Book including print or print media in the form of text book or textbook where in it presented information and stories of interest in accordance with learning materials. Textbooks are an effective learning resource in the learning process for self-learning directly, an effective source for presenting content by teachers, a source of ideas and activities, reference resources for students [9].

Based on the problems above, the implementation of the learning process of curriculum 2013 required a learning media that can also be a companion book in learning Curriculum 2013. The media required is a medium that is able to increase HOTS and instill

character to students. One of the media that can be used is Media Convertible Book based on Scientific Approach which is approach in Curriculum 2013, contains integrative thematic learning materials. Through this research, the researcher will conduct research in developing interesting learning media and can be used to streamline the learning activities.

This research is needed to develop Convertible Book media can be done as needed in learning activities. It will be obtained information and data from the field about the needs of teachers and students to media Convertible Book in learning activities.

Issues to be answered through this research include: whether teachers need a media convertible book in learning activities, whether students need a media convertible book in learning activities, such as what the media display convertible book interesting.

This study aims to determine the needs of teachers and students to media convertible book based on scientific approach in class IV SD Negeri Kalasan district, and provide an illustration related to the media display convertible book-based scientific approach to be more interesting. The content and materials on the media are made in accordance with the learning materials in the Curriculum 2013.

The results of this needs analyses are expected to serve as a reference for practitioners and academics of education and other researchers in making thematic media integrative-based learning approach based on the scientific approach in accordance with the needs of students and teachers in supporting the learning process.

## II. MATERIAL & METHODOLOGY

This research is a research with survey method. This study aims to collect information by performing a demand analysis of Scientific Approach-based Convertible Book media in Elementary School. The subjects are 6 teachers and 100 students from SD Negeri Purwobinangun, SD Negeri SalakanLor and SD Negeri Pakem in Kalasan District, Sleman Regency.

Data collection in this study used data collection techniques of teacher interviews, and observation of learning activities aimed at teachers and students. Instruments used are semi-structured interview guidelines and observation guidelines Check list of media needs Convertible Book.

Interviews were conducted using semi-structured interview techniques, where the interviews were conducted by providing questions that had been prepared in the interview guide and the questions could develop according to the conditions in the field. The indicators contained in the interview guidelines, are (1) the implementation of the Curriculum 2013;

(2) learning process; (3) students' ability to analyze; (4) learning media; (5) media convertible book.

Observation is done on the learning activities in the classroom. The observation indicators are: (1) preparation of learning (2) implementation of thematic learning in class (3) use of instructional media (4) media suitability (5)

Data were analyzed based on interview instruments and media requirement observation. Results that have been analyzed and then drawn conclusions based on the facts obtained.

**III. RESULTS AND DISCUSSION**

*A. Result*

The results of this study were obtained through interviews and observation of media needs for teachers and students at SD Negeri Purwobinangun, SD Negeri SalakanLor and SD Negeri Pakem. Data obtained through interviews obtained the result that the implementation of the Curriculum 2013 in the classroom is still limited to class 1 and grade 4, while still using KTSP (Education Unit Level Curriculum). Teachers who teach with the 2013 curriculum argued that the 2013 curriculum is a good system applied in education today; it is just that there are still some difficulties in implementing it. Implementation of learning with the 2013 curriculum experiencing some obstacles such as student books that are late distributed the material in an incomplete student book, a complex assessment system, and less learning media. Learning media used so far is the old learning media that is less in line with the curriculum content 2013. The existing media has not been able to improve students' analytical skills. The media that teachers need in improving their analytical skills is the media that keeps students actively involved in learning. Media that should be used is a complete and interesting learning media so that students are interested to be actively involved in learning activities. Master said that the use of media convertible book is considered appropriate to be developed and used in learning activities. This media can make students actively involved in learning activities.

		material on the book is not complete so that teachers have to add material from other sources.
4	How is student enthusiasm when learning?	Students are quite active, some students are active in learning activities, but other students are passive and require treatment to be active in learning
5	Do you provide learning that can improve students' ability to analyze?	Yes, but not often done
6	Do you have difficulties in improving students' analytical skills?	Of course, it is difficult to improve students' analytical skills. Learning is only done in a conventional manner without proper media.
7	How is the availability of learning media that can be used in the classroom?	Not very adequate. Most of the available media is old and insufficient.
8	Do you often use the media in learning activities?	Sometimes, teachers find it difficult to find the right media for learning activities.
9	What kind of media is needed?	Media that can be used directly by students, media that can make students actively involved in learning activities.
10	What do you think if media convertible book is used in class?	Good, because this media can make students actively involved in learning activities.

Teacher interview results also show some students in active class in learning activities, but some other students should be given first treatment to be active in learning activities. Teachers are required to be able to create an active and fun learning activities. The material on the student's book that is incomplete causes the teacher difficulty in giving effective learning. In addition, the commonly used media is inadequate for use in learning activities. From various statements given by the teacher, the media needed is the media in the form of books that have many pictures. This is in accordance with the characteristics of students who are in concrete operational stage [10]. The media required by the teacher is the media that the students prefer can be a picture book and contains the complete subject matter. One such medium is the convertible book.

TABLE I. INTERVIEW RESULT

No	Question	Answer
1	How do you think about the Curriculum 2013?	Curriculum 2013 is a good system and suitable applied today
2	Are there any difficulties faced in the implementation of the 2013 curriculum?	There are difficulties, such as delays in the distribution of student books, the material on the student's book is not complete, inadequate learning media, and a complex assessment system.
3	How is learning in the classroom?	The implementation of classroom learning is quite difficult because the

The result of observation of learning activity in class shows activity of learning where student less active in learning activity. Only a few smart and active students are seen prominently in the classroom, while others still look passive and lack the understanding of teacher-provided learning materials. The use of learning media is not done by the whole class in the subject of research; some of them do not have time to use learning media because of the limited time. The use of instructional media generally does not require students to be directly involved in its use; teachers use the media as an example to the students. Lack of inventory of instructional media in school makes teachers unable to provide media to students. The media used by teachers is a media that

has not been able to improve students' analytical skills.

TABLE II. THE OBSERVATION RESULT

No	Pernyataan	Result
1	Teachers prepare learning media	18 classes yes
2	Teachers implement integrative thematic learning	12 classes yes and 6 classes no
3	Teachers use learning media in the classroom	15 classes yes and 3 classes no
4	Teachers use media in accordance with learning materials	15 classes yes and 3 classes no
5	Teachers use media that can improve students' analytical skills	4 classes yes and 14 classes no
6	Students are involving in media usage directly	6 classes yes and 12 classes no
7	Many students are active in learning activities	8 classes yes and 10 classes no
8	Students improve their ability to analyze through learning media	3 classes yes and 15 classes no
9	The teacher directs learning to the ability to analyze	6 classes yes and 12 classes no
10	The class need Convertible Book	18 classes yes

**B. Discussion**

Learning activities in the curriculum 2013 with a scientific approach cannot be applied maximally in SD Negeri, especially in Kalasan District. The media used in the learning activities are still not able to help teachers apply learning maximally. The procurement of instructional media, especially media that can improve the activity of students is still very less. The need for the development of media convertible book that aims to assist teachers in learning is important. The convertible book media serves as a companion book for teachers and students.

The media convertible book can help students actively engage in the learning process. Involvement of students will be able to encourage the formation of student knowledge, in other words student constructs his own knowledge. The same explanation says the purpose of media in learning as a facility of communication and learning [11]. The media used in the learning function for communication means between students and teachers or students to students. Communication made by students related to learning activities. The interaction gained through the media will shape the student experience. It is this experience that students form knowledge. It happened in learning process indirectly.

Printed media that already exist today is not attractive and does not have many images. This makes students less interested to read it. The fourth-grade students of SD according to Piaget [10] are generally aged 6 or 7 years, based on the classification according to Piaget entering the concrete operational stage. Therefore, the fourth graders of elementary school still need interesting and concrete media. Referring to the limitations of existing media, a media convertible book is developed.

Excess media convertible book, which is an interesting picture book with the use of colors, images and there are concepts set a material. The form that is displayed media convertible book can be changed from the form of a regular book, until it can change into a book that opened in length. Based on the type of media convertible book, it entered in print media that contains images. Picture books convey messages through illustrations and texts, so that images and texts share the same role [12]. Pictures enhanced learning but that the text should be spoken rather than written [13].

The principle of developing a convertible media book, using principles that include simplicity, alignment, emphasis, balance, lines, shapes, textures, and colors [14]. These principles are used for convertible media books to suit the content, materials, and appearance. The emphasis on media convertible book is the image and different colors. There are three important things to consider when using colors: (a) selection of special colors, (b) color values, and (c) intensity or color strength to give the desired effect. Media convertible book using monochrome colors because it is simpler by combining shades and colors of a kind/one type. And the colors used are bright colors so liked by children and can attract the interest of children. Colors are liked and can appeal to children such as red, yellow, green, light blue [14].

Characteristics of picture books are: (1) picture books are short and direct; (2) pictorial story books containing serial concepts; (3) the written concept can be understood by the child; (4) the writing style is simple; (5) there are complementary illustrations. The writing style is related to the type of writing used. Media convertible book using the type of writing Comic Sans MS. This is because the type of Comic Sans MS, in accordance with the child's understanding. For example the "a" and "g" types of Times New Roman are different from "a" and "g" on the Comic Sans MS type. In fact the students are more familiar with the letters "a" and "g" on the type of Comic Sans MS [12].

Media convertible book is designed based on scientific approach which is one approach used in the learning process of curriculum 2013. Scientific Approach is a learning process designed so that students can actively build concepts, laws or

principles through the stages in scientific methods such as observing [15]. Scientific Approach is an activity designed to enable students to be active in learning by involving the skills of observing, classifying, measuring, predicting, explaining, and concluding. In this approach, the students are active form their own understanding, teachers in this case become facilitators to shape students' understanding.

Reasons for choosing a media based scientific approach convertible book that refers to the use of pictorial stories as a medium of media that is able to attract students. Picture books are dependent upon illustration, some contain text and other are wordless. The design of the whole- the entire book-, including the size, shape, whether there are single or double page spreads, endpapers, title page, cover, dust jacket, and the placement of the gutter-all are important [16]. The reason for the pictorial story becomes an interesting medium for students because: (a) encouraging the spirit of learning; (b) easy to find in newspapers and bookstores; (c) contains stories about everyday life; and (d) provide a variety of learning styles [12]. Excess media Convertible Book is using integrative thematic and scientific approach on its contents.

#### IV. CONCLUSION

Learning activities in Curriculum 2013 cannot run maximally, one of the obstacles faced is the lack of media that support in learning in the classroom. The current media is incomplete and ineffective for use in Curriculum 2013. Teachers need an easy-to-use interactive medium to enhance students' high-level skills, especially analytical skills. Overall result can be conclude that Media convertible books especially for grade IV elementary school students are needed and can be accepted by teachers and students for use in learning activities.

Media convertible book is one solution for teachers in designing active learning. Through media Convertible Book teachers are easier to provide effective and meaningful learning to students. The media convertible book is designed to help students improve their analytical skills. Teachers and students respond well and need a scientific-based convertible book approach to use in learning activities in order to create effective learning and can improve students' analytical skills. Teachers also support the media Convertible Book to be developed soon. Through Media convertible book is expected to provide solutions to overcome the difficulties of teachers in applying the 2013 curriculum learning effectively. In addition Media Convertible Book can help teachers create learning with Scientific Approach.

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#### REFERENCES

- [1] Heong, Y.M. Othman, W. B., Yunos, J. Bin Kiong, T.T., Hassan, R. Bin, Mohaffyza, M., & Mohamad, B. *The Level of Merzano Higher Order Thinking Skills among Technical Education Students*. International Journal of Social Science and Humanity, 1(2), 121-125. (2011)
- [2] Anderson, L. W. & Krathwohl. D.R. "KerangkaLandasanuntukPembelajaran, Pengajaran, dan Asesmen" Translate by Agung Prihantoro. Newyork: Longman. 2010
- [3] Bloom et al. "Taxonomy of Education Objectives". USA: Longman.
- [4] Purnomo & Wilujeng in Lestariningsih, N. & Suadirman, S.P. Pengembangan bahan ajar tematik integratif berbasis kearifan lokal untuk meningkatkan karakter terpeduli dan tanggungjawab. *Jurnal Pendidikan Karakter, VII(1)*, 86-99. (2017)
- [5] Astuti, Y.W., & Mustadi, A. Pengaruh Penggunaan Media Film Animasi Terhadap Keterampilan Menulis Karangan Siswa. *Prima Edukasia Journal*. Vol. 2, 2 (2), 250-262. (2014)
- [6] Wangid, M. N., Mustadi, A. Erviana V. Y., & Arifin, S. Kesiapan Guru SD dalam pelaksanaan pembelajaran tematik-integratif pada kurikulum 2013 di DIY. *Prima Edukasia Journal*. 2 (2), 175-182. (2014)
- [7] Naz, Ahsan Akhta, Rifaqat Ali Akbar. Use of Media for Effective Instruction its Importancesome Consideration. *Journal of Elementary Education A Publication of Dept of Elementary Education EIR, University of Punjab, Lahore Pakistan*, Vol. 1, 18 (1-2) 35-4. (2012)
- [8] Novianto, A., & Mustadi, A. Analisis buku teks muatan tematik integratif, scientific approach, dan authentic assesment sekolah dasar. *Jurnal Kependidikan, XLV(1)*, 1-15. (2015)
- [9] Schunk, D. H. (2012). *Learning theories an educational perspective* (E. Hamdiah & R. Fajar, Trans.). Yogyakarta: Pustaka Pelajar. (Original work published 2012).
- [10] Smaldino, Sharon. E., Lowther, Deboran. L., Russel, James.D. *Teknologi Pembelajaran dan Media untuk Belajar*. (Alih Bahasa: Arif Rahman). Jakarta: KENCANA. (2011)
- [11] Rothlein Meinbach in Faizah, U. Keefektifan cerita bergambar untuk pendidikan nilai dan keterampilan berbahasa dalam pembelajaran Bahasa Indonesia. *Cakrawala Pendidikan, XXXVIII(3)*, 249-256. (2009)
- [12] S. Herrlinger, T. N. Höffler, M. Opfermann, and D. Leutner, "When Do Pictures Help Learning from Expository Text? Multimedia and Modality Effects in Primary Schools," *Res. Sci. Educ.*, vol. 47, no. 3, pp. 685-704, 2017.
- [13] Azhar, Arsyad.dkk. (2011). *Media pembelajaran*. Jakarta: PT Raja Grafindo Persada.
- [14] Hosnan. *Pendekatan Saintifik dan Kontekstual dalam Pembelajaran Abad 21*. Bogor: Ghalia Indonesia. (2014)
- [15] R. Lukkens, *A Critical Handbook of Children's Literature*. New York: Longman, 1999.