Constructivist Learning Model Using Portal Rumah Belajar for Primary School Student

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Abstract-*Students need to be equipped with Critical Thinking, Creative, Collaboration and Communication competencies known as 4C Competence in facing the challenges of life today. This competencies must start from elementary school level students. In order for students to have these competencies, learning in the classroom must be carried out using appropriate learning models and media for the material being studied. The learning model that can be used for elementary students in learning is a constructivist learning model using portal rumah belajar. The purpose of this study was to see the achievement of student learning using constructivist learning models and learning videos available at portal rumah belajar, to find out the practicality of constructivist learning models and learning videos available at portal rumah belajar, and to find out the feasibility of learning videos available at portal rumah belajar. The method used is descriptive and qualitative quantitative methods. The results of this study indicate that student learning outcomes reach a good category, then the constructive learning model is quite easy to use the teacher and the learning videos used are quite interesting for students. The resulting conclusion is that this constructive learning model is effective for achieving student learning outcomes.*

Keywords: constructivist learning model, portal rumah belajar

I. INTRODUCTION

The challenges of life that will be faced by children in the future will be even harder. Children are not in the real world; they are in the virtual world. In the virtual world, children get a lot of the information they need. The information they need can be obtained by using a gadget. The use of gadgets by children cannot be prohibited, especially children born after 1995 are the generation of digital natives. Their desire to find out about something is very high according to their interests. This digital native generation can develop according to their abilities; therefore, it must be balanced by equipping them with 21st century competencies. The 21st century competency that children must possess is the ability to think critically, communicate, collaborate, and be creative. This competency is provided to students when they are at the elementary school level.

The implementation of learning must facilitate students to be able to have the 21st century competency. Facilitating students to be able to think critically, educators can provide open questions so students give different answers. Different answers indicate that students start learning to think critically. While for creative competencies educators can do it by raising problems that are appropriate to the level of development of students. Answers to diverse problems show that students have learned to solve problems creatively. The ability to communicate and collaborate can be done by students as they discuss and report the results of discussions in front of the class.

This is not in accordance with the reality at school. Based on the results of the author's observation of the design and implementation of learning in elementary schools in Padang in the class that uses the 2013 curriculum, there is no similarity between the design of learning made with the implementation of learning. The teacher is more dominant asking students to read the book then answer the questions in the book individually. This shows that educators have not facilitated students to have 21st century competence.

One way that can be done is to facilitate the generation of digital natives to master 21st century competencies by using constructivism. Understanding constructivism holds that knowledge is built on the process of thinking through experience in the environment (Jonassen 1999: 217; Widodo & Nurhayati: 2005; Suparno: 1997; Achmadi: 2008: 116; Ihsan: 2010: 169; Praja: 2003: 106). Constructivists view learning as a process of building, creating, discovering and developing students' own knowledge that is done individually and socially (Gagnon and Collay: 2001; Schunk: 2012; Marlowe and Page: 1998; Jonassen: 1999; Mayer: 1999). The application of this understanding in schools needs to use the learning model that has been developed. One known model of constructivist learning is the Constructivist Learning Design (CLD) model developed by Gagnon and Collay (2001). This model has six learning stages, namely: (1) building a learning situation, (2) classifying students, (3) bringing together old knowledge with new knowledge, (4) asking

questions to students / vice versa, (5) presentation of discussion results students and (6) reflect on new knowledge they have. This model has been implemented at the junior high school level on wave material.

This constructivist learning model is more maximally used by utilizing learning resources. Learning resources that can be used are one of the features found on *Portal Rumah Belajar*. The *Portal Rumah Belajar* is the official learning portal of the Ministry of Education and Culture, which can be accessed with the URL address http://belajar.kemdikbud.go.id (Pustekkom Kemendikbud: 2017). This *Portal Rumah Belajar* can be used by educators and students both at school and at home for free. The constructivist learning model can be used at the elementary school level. This is supported by the results of research on constructivist learning models showing that: (1) The results of basic knowledge learning students who use constructivist learning strategies are better than expository; (2) The attitude of students towards basic science that uses constructivist learning strategies is more positive than expository (Etuk etc.: 2011). The use of constructivist learning models must be accompanied by using appropriate learning media. Other studies on constructivism approaches for elementary school students prove that learning to write narratives in the elementary school class V is given a constructivism approach with varied methods of strategy and tools, so the narrative writing skills of fifth grade elementary school students at the FIP PGSD Laboratory increase (Zulela MS et al. 2017).

This study focuses on the effectiveness of the constructivist learning model on student learning outcomes, practicality or ease of use of the constructivist learning model and the feasibility of video learning in *Portal Rumah Belajar* by students. The purpose of this study was to see the achievement of student learning outcomes using constructivist learning models and learning videos available at *Portal Rumah Belajar*, to find out the practicality of the constructivist learning model and the feasibility of the learning videos available in the *Portal Rumah Belajar*.

II. METHOD

This research was carried out during January and February 2018. The subjects of this study were grade IV elementary school students. The construction of the UNP Laboratory was 14 people. Before the implementation of the research began, the fourth-grade teachers were trained to use the constructivist learning model and use learning videos. The constructivist learning model is used with the steps of Constructivist Learning Design (CLD) model developed by Gagnon and Collay (2001) as follows: (1) building learning situations, (2) classifying students, (3) bringing together old knowledge and knowledge new, (4) asking questions to students or vice versa, (5) presenting results of student discussions and (6) reflecting on new knowledge that has been possessed.

Learning resources used in the *Portal Rumah Belajar* are learning videos entitled Ethnic Diversity and Culture. After the teacher feels ready, the research is carried out. This research method is quantitative descriptive and qualitative. Quantitative methods are used to see the achievement of student learning outcomes with percentage techniques. The practicality of using the constructivist learning model is done by observation. The results of this observation were analyzed using percentage techniques. Learning videos are conducted by interview. Interviews were conducted using interview guidelines.

III. RESULT

In this section, the results of the study will be explained as well as the discussion that is in accordance with the objectives. The results of the study described consisted of student learning outcomes, practicality of using constructivist learning models, and learning videos and the third was the attractiveness of learning videos.

a. Student's Learning Outcomes

Student learning outcomes are seen from their knowledge in understanding the material being studied. These learning outcomes are obtained after three face-to-face learning. The material learned in the videos of ethnic diversity and culture is the diversity of ethnic groups, regional languages, customs, traditional house forms, traditional clothing, regional foods, cultural arts, folk songs, and ways to respect ethnicity and culture. There are two materials on the video that are not used, namely traditional weapons and traditional musical instruments. In traditional weapons material, the image changes rapidly so that the image cannot be noticed. While traditional musical instruments do not make sound or audio is not heard. It can be seen in table 1.

Based on table 1, it can be seen that the average achievement of student learning uses the constructivist learning model and the video of Ethnic Diversity and Culture by 80% in the good category. This shows that a combination of learning models and videos can be used for fourth grade elementary students.

Table 1. Student's Learning Outcomes

No.	Learning Topic	Assessment Result	Criteria
1	Ethnic Diversity	60.67%	Good
2	Regional Languages	57.78%	Fair
3	Customs	84.17%	Excellent
4	Traditional House Forms	85.33%	Excellent
5	Traditional Clothing	80.00%	Good
6	Regional Foods	83.33%	Excellent
7	Cultural arts and folk songs	61.70%	Good
8	Ways to respect ethnicity and culture	44.67%	Fair
	Average	80.00%	Good

b. Practicality of Constructivist Learning Model

The practicality of using the constructivist learning model is seen from three stages of learning activities. The first stage is the preliminary activity. The preliminary activities carried out are preparing students to learn and convey descriptions of the material to be studied. At the core activity, the learning steps taken are building a learning situation, grouping students, building bridges, giving questions, and presenting. While the closing activities by doing reflection. The results of the practicality of this constructivist learning model, after learning for three meetings.

Table 2. Practicality of Constructivist Learning Model

No.	Learning Activity	Result of Assessment		
		χ	SD	Category
1	Opening activity	5	0	Very practical
2	Main activity	4.46	0.42	Very practical
3	Closing activity	4.33	0.58	Very practical
	Final average	4.71	0.30	Very practical

Based on table 2 it is known that all activities of the constructivist learning model are very practical to use. This means that this model can be used easily by teachers and is suitable for fourth grade students.

c. Feasibility of Video on Ethnic Diversity and Culture

The feasibility test for this video is done by interview. Interviews are conducted with students and teachers. Interviews conducted on sound and image. The results of the interview about the voice indicate that the advantages of this video are seen from the sound that the sound heard is very clear, so students who sit behind are easy to hear it. Then the language used by voice actors is easily understood by students and the intonation is not too fast. The weakness of the video seen from the sound is the use of adult female voices. This voice does not sound new to students because they also listen to the voices of female teachers every day. Students suggest that the sound that comes out is the sound of their age.

IV.   DISCUSSION

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The results of the interview about the pictures in the video showed that the color blend of the images was harmonious and very interesting for students. The opening image of the video is elementary school students, this makes students interested because they will study with their friends. The opening appearance of this video is very interesting and interests students. This helps students to concentrate on understanding the contents of the learning video. The lack of video is that this video only displays image footage. Like a video, there are images that flow into a single unit. So that students are only served with sounding pictures. In addition there are also images that are out of sync with the sound coming out, making students confused in understanding the material. There are also damaged images that cannot be displayed to students. The advice given in this video is that the image must be in sync with the image so that it is easily understood by students. Damaged images should be deleted, so as not to disturb the entire video content. It's best to have a moving image as a video.

V. CONCLUSION

The constructivist learning model using video learning in the *Portal Rumah Belajar* can support the achievement of student learning outcomes. Because students not only see, hear but also can work with friends. This learning model can also be used easily by teachers without difficulty which is suitable so that it is suitable for elementary school students. While the learning videos in general are quite interesting for students, although there are some disadvantages.

This learning model can be used by teachers by making various improvements at each stage of learning. These improvements must be adapted to the conditions of students, learning materials, and goals to be achieved. The video learning in the *Portal Rumah Belajar* program should always be evaluated so that it can be improved.

References

Achmadi, Asmoro. 2008. *Filsafat Umum*. Jakarta: PT Raja Grafindo Persada.

Etuk, Etuk N; Etuk, Grace Koko; Etudor-Eyo, Eno U; Samuel, Jeremiah. 2011. *Constructivist Instructional Strategy and Pupils' Achievement and Attitude Towards Primary Science. Bulgarian Journal of Science and Education Policy (BJSEP)*. 5 (1). http://bjsep.org. akses tanggal 5 Juni 2014.

Gagnon, George W and Collay, Michelle. 2001. *Designing for Learning: Six Elements in Constructivist Classrooms*. California: Corwin Press, Inc.

Ihsan, Fuad. 2010. *Filsafat Ilmu*. Jakarta: PT Rineka Cipta.

Jonassen, David. 1999. *Designing Constructivist Learning Environments. In Instructional-Design*
Theories and Models Volume II, Edited by Reigeluth, Charles M. New Jersey: Lawrence Erlbaum Associates, Inc.

Marlowe, Bruce A and Page, Marilyn l. 1998. *Creating and Sustaining the Constructivist Classroom*. California: Corwin Press, Inc

Mayer, Richard H. 1999. *Designing Instruction of Constructivism. In Instructional-Design Theories and Models Volume II, Edited by Reigeluth*, *Charles M*. New Jersey: Lawrence Erlbaum Associates, Inc.

Praja, Juhaya S. 2003. *Aliran-Aliran Filsafat dan Etika*. Jakarta: Kencana Prenada Media Group.

Pustekkom Kemendikbud. 2017. Juknis Pemanfaatan Rumah Belajar. Jakarta: Pustekkom Kemendikbud

Schunk, Dale H. 2012. *Learning Theories. An Educational Perspective. Sixth Edition*. Boston: Pearson Education, Inc.

Sujarwanto. 2016. Penerapan Model Pembelajaran Konstruktivisme Pada Materi Ciri-Ciri Mahluk Hidup Di Kelas III A SD Negeri Keputran. http://ejournal.upi.edu/index.php/mimbar/article/view/2357 (online) (diakses 30 Agustus 2018)

Suparno, Paul. 1997. *Filsafat Konstruktivisme dalam Pendidikan*.Yogyakarta: Kanisius

Widodo, A dan Nurhayati, Lia. 2005. *Tahapan Pembelajaran yang Konstruktivis: Bagaimanakah Pembelajaran Sains di Sekolah?(*online) (http://file.upi.edu/ diakses 12 Oktober 2012)

Zulela MS. 2017. Keterampilan Menulis Narasi Melalui Pendekatan Konstruktivisme Di Sekolah Dasar. *JPD: Jurnal Pendidikan Dasar*. 8 (2). http://doi.org/10.21009/JPD. Akses tgl 27 Februari 2019