

CULTURE BASED LEARNING TO RESPOND LINESLIDE DISASTER

A. Ucu Rahayu¹, B. Mestika Sekarwinahyu^{1*}

¹ FKIP – Open University, Indonesia

* Corresponding email : urahayu@ut.ac.id

Abstract

Landslides are natural disasters that often occurs in Indonesia. The main triggers landslide is rainwater and human behavior that are not wise to the environment. On the other hand, recently a lot of high school students who are less familiar with local culture. Efforts recognition and preservation of culture needs to be encouraged back in schools. Therefore, this paper will elaborate on West Java culture-based learning in the context of landslide mitigation for elementary school students. Culture of West Java which is integrated into the learning avalanche response is in the form of traditional games, and children's songs (stanzas) of West Java. This paper is part of a national strategic research titled Development Package Learning for Elementary Students in disaster prone regions. The results showed that there was an increase in learning outcomes obtained by elementary school students, and learning becomes more interesting and fun for them.

Keywords: cultural-based learning, landslide mitigation, games, children's song.

1. INTRODUCTION

Disasters are frequent in Indonesia include earthquakes, floods, and landslides. Landslide is the movement of soil or rock in large numbers suddenly or gradually which generally occur in steep unstable. Other factors that influence the occurrence of this disaster is a bare slope and soil conditions and brittle rocks. Rainwater is the main trigger landslides. Human behavior can be the cause of landslides such as mining soil, sand and rock uncontrolled. Common symptoms of landslides are cracks appearing on the slope that is parallel to the direction of the cliffs, springs appear suddenly, the water wells around the slope becomes cloudy, crumbly cliffs and gravel began to fall (IDEP, 2005)

From 2001 until the end of 2009, there were more than 40 events with landslides killing more than 1500 people died / lost and more than 4,500 houses were damaged / buried. (<http://www.ews-ugm.com/berita/bencana-longsor-di-indonesia>). Landslides constantly occurs at the region of West Java. To anticipate and cope with landslides, we have developed learning package that contains material about landslides. Various models of learning can be applied to encourage students to learn, including the model of active learning, creative and fun (CLT). According Indrawati and Setiawan (2009), active learning can stimulate students to develop the idea of using existing learning resources, and cause the atmosphere was happy and excited when learning takes place.

On the other hand, the impact of globalization has decreased local culture. Based on the results of the previous studies, many students are less familiar with the arts and culture of their region. Whereas in the global era, the values of art and culture is necessary to strengthen the moral and culture, and enhance competitiveness. Through the education process values of art and culture can be preserved from one generation to the next. Art and culture are part of the local wisdom. (Yumiati, 2007). Therefore, this paper will present culture based learning to respond lineslide disaster

This paper is part of a national strategic research titled Development Package for Elementary Students Learning in disaster prone regions. The study design used include Research and Development (R & D). The study was conducted in the period from April 2010 to December 2010, while the retrieval of data on a preliminary study conducted in August 2010 in SD Pangalengan VIII, Bandung regency, and Kadudampit, Sukabumi. The implementation learning package model was conducted in May 2011 in Kadudampit District, Sukabumi and SD Pangalengan VIII, Bandung regency. The study population is students and fifth-grade elementary school teacher in West Java. Meanwhile, the sample of this study were grade 5th students and their teachers in elementary school, District Kadudampit, Sukabumi and SD Pangalengan 8, Bandung Regency.

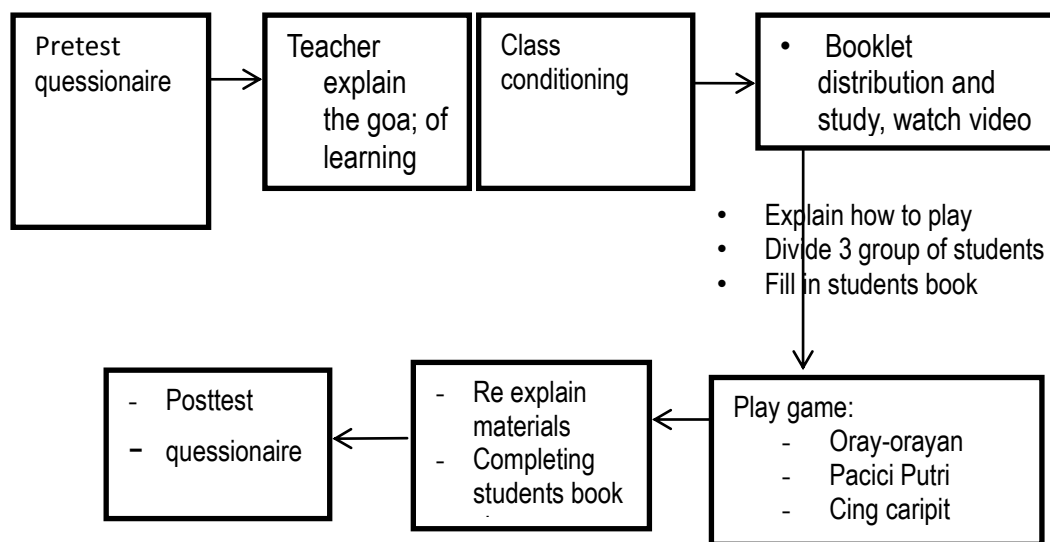
Stage in the study include preliminary studies (includes identifying local knowledge, characteristics and learning styles of students), developing learning package, and implementation of the learning package. From the preliminary study, we developed learning package consisting of learning material in the form of booklet, student books, teacher's guide, audio, and video. The program contains 3 pieces of audio examples that stanza Kinanti, Maskumambang and balakbak. The source is downloaded from <http://achmad.web.id/2008/10/belajar-17-pupuh->

ki-sunda/ address. Video program contains examples of traditional games such as oray-orayan, Pacici putri, and Cingciripit. It is modification from the original version.

The test is done by applying learning package that has been developed with the aim to measure students' understanding of the material being studied. The steps taken are as follows.

- a. Provide initial test for 5th grade students in each school in the sample location
- b. Interviewing and distributing questionnaires to teachers and students before and after the test.
- c. Students follow the learning is facilitated by the teacher and accompanied by researchers for some time. Researchers do observations.
- d. Provide final test related teaching materials, as well as giving questionnaires to students and teachers to evaluate the quality of teaching materials independently.

Beside we measure students' understanding we also measure the quality of the learning package.



Based on the preliminary study showed that local knowledge is needed to preserve traditional games such as oray-orayan, Pacici putri, and Cingciripit and stanzas like stanzas Kinanti, Maskumambang, and Balakbak. The characteristics of the students in the sample showed that students love to learn in the form of picture books and are happy to listen to audio. Furthermore according to the developmental age of 3 and 5th grade, children are more likely to understand the lessons more concrete material (audio visual).

Development Learning Package Based on the results of the preliminary study, the team developed a learning package in the form of :

1. User guide teachers in it contains about: background on why this book needs to be developed, the purpose of the development and application of learning packages, descriptions Learning Pack, Lesson Plan, Model PAKEM
2. Students' books about Learning Package contains materials in disaster prone areas and work instructions for students associated with the stanza and kids games Sunda.
3. Booklet landslides. This booklet is designed pictorial and color, and using language communicative.
4. Audio programs that record a few stanzas Sunda and modification.
5. Program video describing / exemplifies kids games that are integrated into an active learning creative and fun related to the topic of disaster.
6. Card device for material about landslides. The question that is on the card include material about the landslide, mitigation and sanitation. Card load contains about questions and answers. Card made using a paper about the colors to appeal to students.

2. HASIL UJICOBA PENERAPAN PAKET PEMBELAJARAN

2.1 Implementation learning package through games

- a. Pretest dan posttest 5th grade students result of SDN Pangalengan 8 Kabupaten Bandung (n= 37)

Nilai	Materi Longor		Keterangan
	Pretes	Postes	
Rata-Rata	4,76	5,57	
Peningkatan dalam %	17,02		

Mastery and understanding of the 5th Grade students of SDN Pangalengan 8 for mitigation and sanitation materials related landslides increased 17.02%. This suggests that the use of the learning package in the form of booklets and books about materials mitigation and sanitation related landslides delivered via video media and practice of traditional games such as Oray-orayan, pacici cici daughter, and cing ciripit can help students to understand the material. However, when viewed from the values obtained before and after implementation of learning packages do not meet the pass standard of a subject, which is 5.57.

b. The results of questionnaires to students before testing the implementation of the learning package through the video and practice of traditional games children

- 1) All students (100%) subjects like science IPA. karena it's very easy, fun, learn about the environment, can be close to nature, and science is invaluable for life
- 2) 37.8% students said that learn science is difficult, since there is no explanation, it is difficult to remember and boring. 32.5% students said it sometimes difficult. Meanwhile, 29.7% of students said that it is not difficult since the material explain about the nature and they have already studied before school.
- 3) Eighty-nine point two percent (89.2%) of students stated that it is impossible to be taught science through play a game it's playing. Meanwhile, 10.8% of students stated science lessons may be taught while playing and singing.

All students said that they love science and not get difficulty in learning science. If they get difficulty in learning science, they will ask the teacher.

c. The results of after the implementation of the learning package

- 1) As many as 78% of students said love to learn science, play a game make them more comfort and fun, sharpen the brain, more lively, more exciting, not boring, more happy and cheerful. While 22% said not happy because of distraction, interfering with learning.
- 2) Fifty-four percent (54%) of students said they had no difficulty in learning science through a game because it is not boring. While it is 46% of students said that they have difficulty in learning science.
- 3) Most students (89.2%) expressed delight as more fun to learn while play a game. Meanwhile, 10.8% of students did not answer
- 4) Most of the students (89.2%) claimed to understand the material science lessons are delivered through traditional games and use learning package, the rest (10.8%) did not answer. The results of the questionnaire showed that most students enjoy learning while playing, they had no difficulty in learning science through play.

d. Analysis of the students 'answers in the students' books

- 1) disasters that have occurred in the area of students was an earthquake (100%).
- 2) One hundred percent (100%) of students responded that they then ran out the door to a bigger place, and protect yourself.
- 3) Their feelings when they get earthquake are fear, panic, tense and sad
- 4) They often play game jump rope, marbles, parengket jengkol
- 5) The most preferred games: jump rope, parengket jengkol
- 6) All students said that they play together with relatives and friends.

The results of the analysis to students who have completed the book showed that the earthquake was a disaster that had been experienced and still made an impression in the hearts of children. They expressed fear, panic, sadness and tension experienced during the earthquake. Games for girls are still often performed solo or in any school house and his siblings were jengkol chatterbox.

e. The results of the teacher questionnaire answers.

- 1) From the questionnaire given prior to the implementation of the information obtained as follows.
 - Delivering materials with lectures, question and answer or as required by using a mixed Indonesian or Sundanese language
 - Teaching methods appropriate to the material presented
 - Factors that inhibit the subjects taught in the classroom are the lack of media, and books as student resources.
 - learning packages based on local wisdom of sundanesse had ever been applied in the class, although not fully

- Teachers have never applied learning science strategy through play. They only applied discussions and demonstrations to teach science, for example in proving the rainbow
 - Teachers never teach a topic using media, because of the unavailability media. Prior to implementation, the teacher said that he was often apply a lecture, and discussion, but have not been taught the material while playing. Unavailable of media in the school is a constraint of teacher to teach materials.
- 2) From the questionnaire given after the implementation, the information obtained as follows.
- Learning strategy through play a game makes more active learning environment, and more material delivered. The benefits obtained after applying learning package that children are happy and are not easily forgotten. The weakness of the number of children is too much, the rooms were less than adequate, and the media is lacking.
 - knowledge about disasters, how to deal with it, and the importance of sanitation to be increased and better. Learning more informed because they feel happy and there is no fear
 - children are more interested in the contents of the booklet in the form of a picture story. Students are not silent because they are attracted by the game itself and the songs are more interesting,
 - It is good, because it can increase students' interest and attention to the matter, so kids do not get bored easily
 - preparation and implementation may take time because in one day, not all lessons can be applied to the schedule of the learning package, selected subjects according to the package to explore other forms of the game that has to do with the lesson.
- Questionnaire after the application of the learning package filled with teachers showed that the learning package recently implemented is nice (and colorful picture book), so that the students get excited and interested in learning, in addition children's games can activate and attract students to learn. In fact, he suggested that the presentation of the material in the package to be extended again (to other subjects). However, the teachers sid states that the time takes too long so can not be applied to all schedule lessons.

3. RESEARCHER OBSERVATION

The comments of researchers based on her observations is that learning takes place from 7:30 pm until 9:15 pm, rest 15 minutes, running again until 11:30. The lack of facilities such as electricity and the LCD at school, causing research team used their laptop (2 pieces) for learning process. Learning strategy followed the learning scenarios that had been prepared, starting with the introduction, implementation, and closing. The learning scenario as bellow:

At the initial stage, the students were given a pretest material related landslides and questionnaires. However, elementary school Pangalengan 8 actually been exposed to quite a devastating earthquake in 2009. Then teachers convey topic, purpose, and benefits of learning at the time.

At the time of implementation, students were divided into 2 large groups to see examples of traditional children's games and modifications through the laptop before students play. It is also important to note are as follows.

1. Teachers relate the material to the events that had been experienced students (during the earthquake) is like asking the students how they feel and what students do when an earthquake occurs. At the time it seemed most students want to talk about what they experienced, and the teachers were members the opportunity the students one by one to answer.
2. Teacher explains what to make students as the end result of learning at the time and give examples of expected results.
3. At the time of presenting the material, associate professor with the things he had ever experienced students.
4. She looks quite mastered the learning package. Only when the child's views of traditional video games and modifications, teacher assisted by a team of researchers to operate the laptop and monitor learning.
5. Lessons are conducted in accordance with the draft prepared by the research team.
6. During learning process, students appear to be active and motivated. They showed great interest in learning. Not seen a student who was not involved in the study.
7. At the time of the integration of traditional games children, students were divided into 6 groups: two groups of students played Oray-orayan, two groups of students played pacici cici daughter and two other groups play cing ciripit. The students who have not / do not know the song from children's games still use this book as a guide their students to sing. In this activity, the teacher is assisted by a team of researchers.

Teachers seemed a bit overwhelmed, because in part of students playing in the yard, and others learned in the classroom. Teachers are less able to control the students' answers to the question posed at the last game child. Based on researcher observation, student center have occurred at the classromm. Then, teachers quite mastered

the learning package, She empowering students during learning, and giving time for students doing their jobs. Aspects of learning that can be considered to have both are learning is contextual and refers to the actual problem, the teacher explains what students should be made as the end of the activity, learning is done according to the design, materials, and strategies based on the characteristics of the students, the students are motivated and showed interest in learning and actively follow lessons, at the end of the lesson the teacher concludes the lesson. When we examined through a book filled with students, it shows that all students understand what to do in order to save themselves and their families, and efforts to maintain sanitation in the event of a disaster. It is relevant to improved learning outcomes are achieved by most students.

Based on the results of the student questionnaires, and observations made during the implementation of the package of learning in all primary, it appears that students learn science becomes more relaxed, not tense, active, and more daring in expressing an opinion. They were delighted to learn that playing. The ability of teachers to teach in traditional games children affect the smooth implementation of this learning package. The more students imitate playing traditional games.

Based on interviews and questionnaires from the teachers, the result that learning package (booklet with a picture, audio and video programs, as well as traditional games) has increased the interest, attention, to enable students to learn, and make students more creative, especially the students who integrate local knowledge. Actually, there is a weaknesses of this model because of the lack of media. In teaching a game, teacher should bring a video player or laptop to show the game. Time constraints in implementing the packages that are observed also an obstacle. Based on observation, teacher seems deliver materails in a hurry since a limitation of time. Therefore, student achievement not as high as desired.

4. CONCLUSION AND RECOMMENDATIONS

4.1 CONCLUSION

1. Based on the pretest and posttest trials were conducted on the implementation of the learning package at SDN Pangalengan 8 obtained the following results. Average gained of score for the material Landslide are about 17.02% for SDN Pangalengan 8. Based on these data, it was concluded that the package contains learning materials on mitigation and sanitation-related landslides are integrated with traditional games and activities can enhance understanding of fifth grade elementary students'.
2. This model can improve students' activity, creativity and student learning outcomes.

4.2 RECOMMENDATIONS

Based on the conclusions that have been described are the researchers propose some recommendations related to learning package on mitigation and sanitation-related landslides are integrated through traditional game.

1. Local knowledge should be integrated in the learning activities, in particular children game. In addition to preserving the wisdom of each region. This integration can also be used to make the lesson more varied, interesting and fun.
2. Characteristics of students in each region varies. Preferably in asking questions, developing a model or a package of learning, developers need to pay attention to the characteristics possessed by the students who will use the methods and the learning package.
3. It should be developed learning package that can optimize a child's learning teaching materials that include print, video and audio so that students learn skills such as auditory, visual, and audio-visual equipment can be accommodated properly. Before implementation of learning package with this complete media teacher should study it first and give concrete examples related to the material covered.
4. Although this learning package to enhance students creativity, liveliness and student learning outcomes, but the role of the teacher still cannot be replaced with the media.
5. This learning package is far from perfect, hopefully there are others who feel concerned that will do further research and development so that the package is the perfect learning and can be applied in any elementary school student fifth grade.

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