



PHASE DEFINE: POP-UP BOOK AS A MEDIA LEARNING ELEMENTARY SCHOOL STUDENT BASED INDIGENOUS SCIENCE LOCAL WISDOM FARMERS VILLAGE SALT JONO

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Abstract

In pop-up book as a medium the introduction of local knowledge related knowledge native process of making salt jono to village of primary school age children primary school in order that he might the natural resources in the region. It also can foster the sense of love of country and proud of the local culture owned jono village. This study aims to know needs analysis students and teachers on the development of a pop-up book as a medium learning primary school student based indigenous science local wisdom farmers salt jono village, and developed. The development of this pop-up book research methods have research and development with the procedures used the development of which is a modification of 4d model that was triggered by thiagarajan (1974). The stage that have been conducted by namely define and design. During the preparatory phase of define the results showed that knowledge of the production process salt in the village jono not yet used as the theme of primary school in their experiences in the. The procurement of media that are contextual and fun is really needed by the educator in the process of learning to support students understanding of the subject matter. A literature review and field work was carried out by means of interview, observation, and documentation. Based in pop-up book indigenous science local wisdom farmers salt jono village is hoped can be alternative media learning that can be used educator in creating an atmosphere of learning which interactive and fun and easy to understand students .

Keywords: pop-up book, local wisdom, farmers salt Jono village, the learning.

Introduction

The process of producing a salt in Indonesia in general run based on the the evaporation of seawater with the help of the rays of the sun (rositawati, dkk, 2013). But distinct with the production of salt in the village jono. The process of making a salt done in the village jono, tawangharjo, grobogan , central java it is very unique and science is an original (indigenous science) because in the form of knowledge of terkonsep curriculum nor taught in formal education.

Indigenous science is defined as a rational response collectively challenging reality that is culturally dependent. This response can be an act of constructing reality and building reality itself. Collective means to be believed and used by many and independent of personal

thoughts or small groups. Hardestey (in Snively and Corsiglia, 2001) calls native science an ethnosience described from a local cultural perspective with respect to the classification of objects and activities related to natural phenomena.

Okechukwu S. Abonyi et al (2014) describes native science (ethnosains) as indigenous knowledge derived from cultures and languages depicting a unique system of original knowledge and technological knowledge. The notion of ethnosciences is also corroborated by some expert opinions that ethnoscience is a system of knowledge and cognition typical of a given culture or a system of knowledge and ideas or thoughts typical for a particular culture.



The emphasis is on a knowledge system or device that is a distinctive knowledge of a society (local wisdom, as distinct from the knowledge of other societies). The distinctive knowledge of such a society is called original science knowledge that is unstructured in the curriculum and not yet formalized.

The process of making a unique salt Jono Village produces salt quality that has a brownish white color and the selling value is quite low. So as to make its own peculiarities about the characteristics of the salt. Community knowledge has not yet been formalized. This is what the researchers want to do in order to be able to make the community environment a teaching material in formal schools.

How to make salt in Jono village is very unique and different from other salt farmers. First, they take salt water from the well by drawing, then salt water is flowed through the pipes (pralon) to the shelter. Second, the salt water is allowed to stand for 2-3 days in the shelter. Third, the salt water from the shelter was poured into klakah (bamboo to dry the salt) and dried in the sun. When the salt water is dried in the clay it has begun to crystallize then dredged by using coconut shell pieces. The harvested salt is accommodated in dunak (bamboo basket), while the remaining water is called bleng accommodated in ngaron (Lucia, 2016).

The process of making salt of Jono Village tends to be hereditary is done by salt farming families only, not the Jono Village as a whole. This has caused many villagers of Jono Village who are not salt farmers do not know how the salt production process exists in their area, whereas this tradition is a local wisdom that needs to be proud and preserved.

The introduction of local wisdom related to the process of making salt of Jono Village needs to be done especially in elementary school children (SD) so that they can understand the natural wealth in their area. It also can foster the love of the homeland and proud of the local culture owned by Jono Village.

Understanding of learning according to Slameto (2005) is a business process undertaken by a person to obtain a new behavior change as a whole, as a result of his own experience in interaction with the environment. Meanwhile, according to Omar Hamalik (2002), learning is a growth or change in a person expressed in new ways of behaving thanks to experience and practice.

Student-centered learning shows a new view that in the main learning process is the activity of students in their involvement in the learning process in the classroom. Student-centered learning demands a teacher's role in optimizing students' activity in learning and maximizing teacher interaction with students and students with teachers. Students experience the dynamics of thinking and exercising the trust and courage themselves to express their own opinions. The role of teachers in this case is as a facilitator who mobilisator in learning in the classroom-centered students (Suharyati, 2016)

According to Piaget (2002), Primary School students are included in the late childhood who are at concrete operational stage in thinking (Rita, et al, 2008). So, the need for a local-based wisdom-based learning media to meet the needs of elementary school students in accordance with its cognitive development.



The existence of teaching materials in the form of pop-up book can be utilized in the learning process as a source or alternative learning media based on local wisdom. This is an effort of the government in improving the quality of process and product learning and improving the quality of salt produced by Jono Village community in the future. Therefore, it is necessary to conduct research that can assimilate the knowledge of original or traditional science into scientific science in the learning process, and serve as a medium of learning science in the form of alternative pop-up book that is contextual and fun for students and based on local wisdom.

Sumarmi and Amiruddin (2014) explain that local wisdom is local knowledge that is used by local communities to survive in an environment that integrates with belief systems, norms, laws, culture and is expressed in tradition and myths held in the long term a long time. Local wisdom is an awareness of local wealth / a region of knowledge, beliefs, norms, customs, cultures, insights and so on which is inherited and maintained as an identity and guidance in teaching us to act appropriately in life. (Unga Utari, I Nyoman Sudana Degeng, and Sa'dun Akbar, 2016).

A pop-up book is a book that can display three-dimensional (3D) structures when opened and can return flat when folded or closed. Pop-ups are also called origamic architectures originating from Japan (Chatani in Okamura Sosuke and Takeo Igarashi, 2010). A pop-up book is a 3-dimensional form book that is a snippet, patch, and fold of an image placed between two book folds. The 2 dimensional effects will appear when the book is opened (Karnadi in Indrawati, 2013). Pop-up books can provide a more interesting visualization of the story from images that look

to have a three-dimensional and kinetic look. Images can be movable when the page is opened or the part is shifted to move to form like the original object. Another thing that makes pop-up book interesting and different from the usual illustration storybook is that readers like to be part of that amazing thing because they have a stake when opening the page of the book (Sabuda in Kusuma, 2013).

Pop-up books are something that is still considered unfamiliar by some teachers and elementary school students. This can be seen from the number of teachers who do not know what a pop-up book. Pop-up books contain certain pictures and writings that contain information, knowledge, or stories that will be conveyed to readers (Fadillah, R.N and Ika Lestari, 2016). Bluemel and Taylor (2012) explain that pop-up books provide potential for interaction with the use of paper mechanisms such as folds, rolls, shear, touch, or rotation. The pop-up book technique commonly used for making pop-up book is floating layers technique, v-fold technique, multiple layers technique, magic box technique, and hinged technique.

In student-centered learning, the use of pop-up book helps teachers to create an active and fun learning process because in addition to pictorial and appealing to students, learning with pop-up book media can also stimulate children's curiosity and the liveliness and power of children can absorb and understand the learning materials provided.

Various studies show that this contextual alternative science learning model is a fairly effective approach in learning because it can increase the motivation, interest, and liveliness of learners. Among the research conducted by E. Djulia (2005) obtained the results of



research showing that the original knowledge concepts of paddy farming communities can be explained causal relationships by school science that led to the tendency to form students' scientific conception of photosynthesis and respiration plants, integration of school science about metabolism and community science on farming culture towards science education. Another study was conducted by H. Belva et al (2015) which shows that the development of POBUNDO (Pop-Up Budaya Indonesia) as a culture-based learning media that is feasible, interesting and effective to introduce Indonesian culture in grade 4 elementary school students.

Method

The method used in this research is research and development (research and development). The development procedure used is the modification of 4D model initiated by Thiagarajan (1974). The 4D model includes definitions, design, development, and dissemination. However, the implementation of this research is only up to the defining stage (define) and the design stage (design). In this article will explain the definition stage (define). The define stages include initial analysis, student analysis, and literature studies and field studies.

Instrument used in the form of observation sheet and interview. While the data collection techniques are observation and direct observation in the field, interviews, and documentation. This study uses a qualitative descriptive research approach through ethnoscience, a study of knowledge systems organized from cultures and events related to the universe found in society (Battiste, 2005). The process of data analysis in this study was

conducted simultaneously and cyclic with the data collection process. This process is often referred to as an interactive data analysis process (Miles and Huberman, 1992).

3.Results

This study aims to develop a medium of learning to pop-up book farmers salt Jono Village with 4D method, namely definition, design, development, and dissemination. Data in this research is data at define stage.

At this stage there are several steps, namely the beginning-end analysis, student analysis, and literature studies and field studies. Preliminary analysis aims to analyze the curriculum applied in primary schools, whether still using KTSP, new 2013 curriculum, or revised curicum of 203. At this stage, researchers also analyze three aspects, namely learning process, subject matter, and media frequently used learning.

Student analysis is done with the aim of analyzing students' potential in preparing human resources in Jono Village. The result of the observation shows that the students are very happy if the learning is using the original knowledge approach of the community because in addition to learning or lessons in school, the students also become familiar with the knowledge of the people in their area.

Before to compiling a pop-up book indigenous science local wisdom of Jono Village salt farmers, researchers conducted literature studies and field studies to find the required data. Literature study is done by reading and understanding various literatures related to class 3 of elementary school. Field studies were conducted by visiting the salt pond in Jono Village.

4. Discussion



This study aims to develop a medium of learning to pop-up book farmers salt Jono Village with 4D method, namely definition, design, development, and dissemination. Of the four stages, the data described there is this research is the data define stage.

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Based on observations in several classes, it is found that the learning process is still teacher-centered, some students are active, but there are some passive students. Students tend to play alone with their friends. The results of interviews with teachers explain that the curriculum used in schools is the curriculum 2013. Interview results also mentioned that it takes alternative media that can be used to teach that students can be active as a whole in the learning process.

Pop-up book media has never been used in school learning. The results of needs analysis in terms of these three aspects become a problem for students. There should be some alternative media used in learning, it was decided to develop the learning media pop-up book as a means of supporting learning. This medium was chosen because it has never been applied in school and in accordance with the cognitive development of elementary school age students.

The process of production of the salt of Jono village that passed from generation to generation needs new generation to pass on

local culture and local wisdom owned by Jono Village. The new generation in question is elementary school age children. This new generation will preserve and preserve Jono's unique local wisdom. Student analysis is done with the aim of analyzing students' potential in preparing human resources in Jono Village. To prepare a generation that is aware of the culture and wealth of the region.

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The process of making the salt of Jono Village is used as an approach in a pop-up book. Students are introduced by means of making salt in Jono Village which is different from others. It is intended that in addition to studying the existing lessons in school, students can also learn about the ways of the process of production of salt Jono Village.

Interviews with some salt farmers explain how to make salt clearly from the early stages of the drainage of salt water to salt harvesting. The community's original knowledge was assimilated into formal knowledge and combined with subjects for students to learn in school.

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