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**IDENTIFICATION LOCAL MATTER TYPICAL SOUTH SUMATRA
TO DEVELOP MODEL OF LEARNING BASED CONTRUCTIVISM
FOR ENVIRONMENT LITERACY ON JUNIOR HIGH SCHOOL
STUDENT IN INDONESIA**

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Abstract: The main purpose of this research is to produce a prototype model of learning based typical local materials from South Sumatra to develop student environment literacy on junior high school in Indonesia. The purpose of the first year of the research one is identifying the material locally which are local wisdom, potential local and typical local problems of South Sumatra which can be utilized for the development students environment literacy model of learning which was done. Sampled area in this research is based on topography and demography divided into three district namely munacipilty palembang represent urban areas, regency muara enim represent mountainous regions and regent ogan ilir represent of coastal marshes and transition. The result showed that on each sampled district for many locals material that could be used in learning biology especially to form characters environment literacy. Local content in the form of local wisdom are Tunggu Tubang, Lebak lebung, Siring System. Being locally potential are productive forest area, waterfalls Curug, Swamp forest, River, Musi River and other tributaries, punti forest wood,/Kemaro island as well as the coal mining, petroleum. Local wisdom and local potential can be utilized for learning on learning topics (Interaction between living organisms, pollution, Global warming, Increasing population, technology products) which relate to develop environmental literacy.

Keywords: Local materials, south sumatra. the learning model, environment literacy

Education environment since 1991 been entered curriculum all education level in indonesia. The aim is to raise awareness of and passion for the environment and to learners having attitude care and not harm the environment (Nurjhani, 2003). The entry of the living environment in education, obligatory national curriculum becomes an alternative of the most rational for the success of the management of the environment and also become important means in producing human resources that can carry out the principle of sustainable development (Rowe.D., 2002; Martin *et al.*, 2006; Trevor,D., 2009; Trevor, D.,2010).

After 22 years, teaching material of environmental education applied in the study should have produced a real manifestation of attitudes and behaviour of environmentally conscious society (Adisenjaya, Y.H, 2009). But based on the research universities adelaide (Corey j.a. , 2010), Indonesia, including in four big countries most contribute to the environmental damage after brazil, united states and china. Seven an indicator used in the research is deforestation, the use of chemical fertilizers, water pollution, carbon emissions, catching fish, and the threat of species of plants and animals, as well as transition land green to commercial land such as mall, or the center of trade and also an estate. Above an indication of the fact that the purpose of education environment haven't completely achieved. Yet to achieve educational objectives on the environment because the application of environmental education at all levels of education, ranging from elementary school smp, smas even in college has undergone disorientation. Likewise can be seen from learning and the process of material substance. On the

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substance of material ranging from Elementary, Junior high school and even in College, the material being taught more reflect the substance of the material science material substance yet ecological environment that is becoming a core staple on environmental education, even though substantially between ecology and environmental sciences is very different. The difference lies in viewpoints where ecology looked not human being out system nature contrarily science to a human environment viewed as inevitably a part of a system of nature. As the impact, strategy implementation of learning which used teacher or lecturer in teaching also be improper especially when viewed as achieving educational objective environmental oriented to development side affective learners psychomotor and learners form of attitude concern of the environmental experiencing shift into just a source of information cognitive form of knowledge only (Martin et al, 2006; Adisendjaja, y.h.2009; Leksono et al. , 2012).

According to some studies, cognitive information conveyed to students anything separated from the environmental condition students who lived and do not touch the aspect of mental students actively in fact of learning environment dna-based local matter is a recommendation on the agenda of 21 (Joseph et al. , 2007; Adisendjaja, 2009; Leksono et al. , 2012, Burn d.p. et al. 2009), the impact of all of these things is learning biology of the environment only limited to only hapalan only and does not provide any change in the attitude of students. Attitude affected by three things: knowledge (cognition) fondness (afeksi) and intention to commit (Conation). Knowledge affect conception. A conception of different, with the concept of if the concept is regarded as a collection of systematic knowledge that which is constituted or notion that are meaningful and agreed upon between scientists, then conception often regarded as' in a receptive manner a konsep' that is spatially subjective (Rustaman and Widodo, 1997). Other view expressed by pratt (1992) quoted Devlin (2006): one-twelve that conception is the specific signification given to a phenomenon and further show a response someone in represent and apprehends a phenomenon and learn according to konstruktivis is change conception (conceptual change).

Based on the above issues, it needs to be developed based on the constructivist model of learning biology with local materials typical of South Sumatra with the aim of cultivating the attitude of care environment (Environmental Literacy) especially in the junior high school students because the students of junior high school have the subjects of biology and research results Hess and Torney (1967) found that childhood is an important period for the development of the concept of self and sensitivity to be responsible citizens. Research also shows that after graduated from high school just get knowledge that is spatially fragmentation (Adisendjaja y.h. 2009).

Formulation of the Problem

Based on the description above, the outline of the research problem is how is the development of models of biological learning and local materials typical of South Sumatra which can Foster Literacy in students Environment.

Research Method

This research is development research, therefore the approach used also follow turnarounds development Research (Borg&Gall,1989) consisting of ten steps: 1) needs analysis and the study of literature; 2) product planning; 3) development of a prototype product; 4 limited Testing); 5 major product Revisions); 6) field testing; 7 Product Improvements); 8) Trial Court; 9) Revision of Final Products; and 10) dissemination and implementation. On this paper will be discussed at the third stage, namely the development of prototype products.

This research purposes to develop kind of classroom biology with local matherial typical south sumatra to grow environmental literacy students. Research purposes are:

- a. Identify local material typical south sumatra form of the local wisdom, natural resources and problem of environment typical south sumatra.
- b. Develop blueprint model aimed to develop character environment literacy students

RESULTS and FINDINGS

Model of Learning

According to Orr (1992, p.92), environmental literacy is the 'knowledge necessary to comprehend relatedness, and an attitude of care or stewardship [An environmentally literate] person would also have the practical competence required to act on the basis of knowledge and feeling'. UNESCO-UNEP (1989) suggests that 'environmental literacy' is the ultimate goal of environmental education. Orr (1992) argues that environmental literacy is primarily concerned with '*knowing, caring and practical competence*'. To this end, Orr (1992) argues that the environmentally literate person understands the dynamics of the environmental crisis which includes a thorough understanding of how people (and societies) have become so destructive.

Attitude is a term first used by Hebert Spencer (1862) which refers to a person's mental status (Azhar, 2013) in its development there are three frameworks of thought about the attitude that is defined as a form of feeling attitude favoring or impartial person on a certain object, both represented by Chave stating that attitude is a kind of readiness to react to an object with certain ways, readiness is a potential tendency to react in a certain way when the individual is exposed to a stimulus which requires the presence of response. The group third oriented scheme triadik stating that attitude is kontelasi components cognitive, affective and konatif who interact in the understanding; feel and behaves toward an object. Approach oriented to scheme triadik is known also -named tricomponent. Aspect attitude to be developed in this kind of classroom adheres to understand scheme triadik but the placement third component konitif, affective and konatif this views on tripatite model namely attitude somebody already can be known from see one course of that response but description fully on attitudes of individuals should be obtained from seeing third response the full.

According to understand behaviouris, learning is a change in attitude (Behaviour Change) to make changes in the attitude of students required physical stimuli from the outside in the form of reinforcement (reinforcement), practice and external learner motivation are viewed passively while according to constructivism, learning is a change in the concept of (Conceptual Change). On the change of concept going on several stages the first stage called assimilation and the second stage is called accommodation. In order to assimilation and accommodation required terms such as dissatisfaction against the concept that there is a new concept, should be able to understand, rational and able to resolve the issue or phenomenon that is changing the concept of the ultimate goal of learning behaviour is changing the attitude of the students but the student how to change no further explanation other than just the conditioning of a learning environment while on approach to triadik scheme or third case involving attitude tricomponent i.e. cognitive, affective and konatif. Kontruktivisme focus on cognitive structure changes according to Posner (1982) there is a change in learning concepts, the concept of change there is assimilation and accommodation. Assimilation is the use of concepts that have existed for dealing with the phenomenon or new concepts while accommodation is a change concept radically because of incompatibility with the new phenomena encountered.

One of the constructivist learning model developed from constructivist theory of Vygotsy and Ausabel is Learning 5E Learning Cycle (root, 2005) model consists of 5 stages of Engagement, Exploration, Explanation, Elaboration and Evaluation (Bybee, 2009) while the conceptual changes in the models developed Joseph i. Stepan consists of 6 phases i.e. Commit to a position or learning outcomes, Exposé of limiting beliefs, beliefs, Confront Accommodate the concept, Extend the concept, Go beyond. On first phase commit to a positions or outcome, students invited to explore his mind own by sought response over a question or completion a problem. On both phases expose belief students with discussed and share ideas, reason, predictions against a problem with my one class or one group before they try to test the idea with a activity. Thirth is confront student believe early ideas they have experimented with conspiring to test conception early. Gregarious this experiment it might be working with tools and materials, collected data or consult on affairs. At fourth phase acommodate the concept students accommodate views, concept, and new skills in various ideas and situation. At phase fifth extend the concept students apply and make the relation between concept or new skills for the situation and a new idea. The sixth phase of the Go beyond students to apply these new ideas in their daily lives, from the analysis of the third theory above, developed a new learning model based on local materials to improve student literacy enviroment.

Identification Local Matter Typical South Sumatra

Learning science that uses a source of learning from local matter or environment around on a variety of studies (yuniatuti, 2013; mariantini, 2005; suratsih, 2010) can increase the competency basic science students in addition to that content of learning developed not from the environment distinctive about students led to students only gain knowledge technical course without impact of long-term with the students. This happens because the students who are at the age of smp are still facing the development of the ability of reflective and metakognitif and so students can not distinguish between information that is both factual and analyses the possibility because the students could not put different things reported in the same category (fleischer.S, 2010)

Typical local South Sumatra material identified in this research include local wisdom. Local wisdom is the agreement of local communities in the form of a series of values, rules and norms that are considered good and maintained hereditary. Local potentials identified in this research is artificial and natural resources in a region that is preserved as a local problem is all the negative aspects of human activities that have an impact on the physical environment include climate change, the loss of natural resources and pollution. The identification of local wisdom can be seen in table 1.

Table 1. Some Potential The Local Wisdom Typical South Sumatra To Build Character Enviroment Literacy

| No | Potential wisdom | Location |
|----|--------------------------------|------------------------------|
| 1 | Stage house | Most of the territory sumsel |
| 2 | Auction System of Lebak Lebung | OKI dan OI |
| 3 | Tekiang System | Semendo Territory |
| 4 | Tebat Mandian | Semendo |

According to Sudjana and Ahmad (2009) learning resource requirements are: a) economical, economical low prices do not mean, can also Fund for procurement of learning resources is quite high but due to its utility for the long term so it could economically; b) practical and simple, c) easy to obtain; d) is flexible,; e) components in accordance with the purpose, process and support the achievement of the learning objectives, can stir up motivation and interest in students learning. Those conditions can be pervaded by the stage. The stage is home construction field raised with traditional stories from surface soils with poles as penopangnya. Building stage is an adaptation, humans against environmental conditions e.g. when the tide water not come into the house. Building material is kayu derived from nature. Adaptation and of natural resources utilization examples human interaction with environment. This line with opinion Siswanto (2009) that the construction of a stage indirectly care environment is attitude may benefit in maintaining ecological to stay up earth ecosystems. It relates with the construction of buildings on the underside of the stage that is empty land, the water flow and keep water absorbs. Level responsife building in anticipation influence of temperate to tropical humid demonstrating ability building in interact in in its environment. The same advanced by Main (2013) that home traditional built and developed by considering environmental conditions around is the local wisdom because knowledge arif it obtained either from earlier generations or of his experiences relating to people and environment others and to finish problem. Interaction of human and its environment affecting the manner of construction house so house kept feel comfortable as the residence besides remain a harmonious with the environment. The same is expressed by Main (2013) that traditional home built and developed taking into account the environmental conditions surrounding the local wisdom as knowledge that is obtained either from arif the previous generation as well as from her experiences dealing with environmental and other community as well as to resolve the issue at hand. Human interaction and the environment affect the way the construction of the House so the House still felt comfortable as a residence in addition to remain harmonious with the surrounding environment. Such circumstances can be used as an object of discussion between teachers and students through a contextual approach, in particular regarding the adaptation and dependency towards nature which is a form of interaction of living things and the environment.

Ogan Ilir Regency, the Government issued local regulations (Perda) related fisheries in lebak lebung namely lebak lebung auction system. Lebak lebung auction system that is a way of getting the right system or an attempt to get a business license fishing for one year's time (Thys Michels, 2009). Lebak lebung is an area rich in nutrient elements that many aquatic plants are a source of natural fish fodder. Auction system of lebak lebung identified in this research is worthy as a learning resource. These can be seen from eligibility for compliance with the concept of the curriculum and learning materials science. According to the Department of national education science learning concept covers four main elements that: 1) attitude: curiosity about benda, natural

phenomena, living beings, and relations for consequence to cause new problems that can be resolved through the correct procedure; 2) the process: procedure problem-solving through scientific method; 3) of: form of fakta prinsip, theory and law; 4) application: the application of scientific method and concept science in daily life. Fourth concept learning science can be pervaded by bidding system lebak lebung good of solving a problem or kesesuaiannya with competence curriculum Yuniior high school in Indonesia

Staple food semende society is rice and most district semende is sawah. In the provision of food usually people semende humped-up rice crop in tengkiang. Tengkiang is a typical the barn rice semende. Existence more in tengkiang closely related to food security. The purpose of making tengkiang semende is by society as a reserve supply of food when the lean season arrives. This conformable to law no 7 1996 about food which dictates that the government along the people responsible externalise his food security. The construction tengkiang nearly the same as breadbasket konstruksi rice in general is sustained by poles so as not to disturb water catchment area underneath. According to Sartini (2004); custom basically capable in naturally and it is valued both, because those habits is a social repeated and had been increasing (reinforcement). Wisdom society semende tengkiang make effort in food security is a the local wisdom that shows the need humans against natural resources.

Tebat mandian is one of the utilization of water resources by society countryside muara calm by with menampungnya in two pool equipped with the circulation of water is good. Wisdom semende people in water resources management among others can be seen from making two pool shelter that serves as source of drinking water and toilet activity maintain clean environment around pond source of drinking water to prevent water from contaminated. Wisdom semende people in water resources management indicative of the human need for water and the interaction between humans and the environment in the utilization of natural resources.

CONCLUSION

Blue Print that development by this research are first phase commit to a positions or outcome, On both phases expose belief students. Thirth is confront student believe early ideas they have experimented with conspiring to test conception early.. At fourth phase accommodate the concept students accommodate views, concept, and new skills in various ideas and situation. At phase fifth extend the concept students apply and make the relation between concept or new skills for the situation and a new idea. The sixth phase of the Go beyond students to apply these new ideas in their daily lives, from the analysis of the third theory above, developed a new learning model based on local materials to improve student literacy environment. Some Potential The Local Wisdom Typical South Sumatra To Build Character Enviroment Literacy are Stage house, Auction system of lebak Lebung, tekiang system and tebat mandian.

RECOMMENDATIONS

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