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THE ANALYSIS OF PRACTICALITY OF PROBLEM BASED LEARNING (PBL) INTEGRATED WITH LIFE SKILL OF THE JUNIOR HIGH SCHOOL STUDENTS IN KUPANG

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Abstract: Integrated science learning using the right learning model creates meaningful learning. This study aims to describe the applicability of the Problem Based Learning (PBL) model integrated with life skills in Integrated Science learning based on literacy of middle school students in Kupang City. This research is a qualitative research with descriptive approach. The research subjects were three Integrated science teachers of grade VII middle school. Data collection is done by interviews, participant observation, and documentation. Data analysis techniques are validity test namely triangulation technique. The results of the study were obtained by analyzing and examining Syllabus, lesson plans, and textbooks used in learning based on PBL syntax. Model applicability is based on the syntax examined, there are problem orientation at 20.09%, organization for researching at 14.09%, assisting independent / group investigation at 15.09%, presenting artefax / exhibit at 12.69%, and analyzing and evaluating overcome the problem at 38.04% Based on the observations made, the results show that learning devices and teaching materials compiled have not implemented life skills-based education optimally.

Keywords: Problem Based Learning, Life Skill

INTRODUCTION

The paradigm of National education isto observe and understand problems based on the emerging issues, as well as how to overcome these issues. According to the National Education Standards Agency (2010), one of the characteristics of XXI century education is the change from natural or human resource based economy to a knowledge-based economy, along with its implications for the quality of human resources, education and employment. Education in the XXI century needs to pay attention to the balance between skills development and academic education, which includes technical and vocational education at the secondary education level. Preparing students competencies based on the educational requirements needs to be doneto attain national education competencies targets.

Education is a work to build humanthat ableto protect themselves against nature and regulate relations between others. By this matter, it is necessary to consider several components supporting educational success.One of the component is the curriculum of a learning process. The 2013 curriculum aims to prepare Indonesian people to have the ability to live as individuals and citizens with productive, creative, innovative, and affective beliefs and are able to contribute to other people, nation, state and world

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civilization. In order to manifest this, learning process needs to be designed with models, methods, and strategies that are appropriate with compentencies achievement. Based on Rusilowati (2013),science education is one of the subjects in junior high school that becomes an important foundation to form quality human resources. In accordance with the nature of science that learning should prioritize a process, product, and attitude.

In fact, there are still many teachers prioritizing products, and not paying attention to the processes in learning. The teacher prioritizes cognitive aspects compared to affective and psychomotor aspects. The teacher thinks that using a learning model will take a long time, so the target material will not be achieved. Based on the results of interviews and observations with teachers in junior high schools in Kupang City, it was found that teachers had applied various models, methods, and learning strategies that were innovative and creative but had not been implemented optimally. Another problem that needs attention is teachers difficulty in developing innovative and creative teaching materials, so the learning process is not in accordance with competency target. Teachers often rely onteaching materials from publishers, which is after observation, they have not applied learning models according to the conditions of the students and the surrounding environment. Teachers as curriculum implementers, facilitators and motivators for students through teaching and learning activities in schools have not been optimal in providing life skills-based education, so students do not have the provision to work and socialize in life. Another fact is that curriculum content in Indonesia tends to strengthen academic skills. Learning is emphasized in the concept of memorization, while students' ability to read or understand concepts is still lack.

According to OECD in Zhasda (2018), scientific literacy is the ability in using science to identify changes of nature, draw conclusion,and take decision based on it. Students who have high scientific literacy are expected to be able to solve and adapt from every problem encountered.. Thus it is necessary to integrate life skills education in the curriculum in junior high schools. The purpose of integrating life skills education in the learning process is to provide students that are unable to continue to a higher level education with provisions.Thedefore, they will be equipped and have confidence in facing the demands ofscience and technology development.

Life skills education seeks to provide skills or abilities to adapt and behave positively, which enables a person to deal with various demands and challenges in life more effectively. Reorientation in life skills education implementationneeds to be done.Life skills education is not a school subject so there is no need to change the curriculum and create new lessons. The position of life skills education is strengthened by the issue of Government Regulation number 19 of 2005 Article 13 as stated in paragraph (1) that "the curriculum for SD / MI / SDLB, SMP / MTs / SMPLB, SMA / MA / SMALB, SMK / SMAK or other equals form can include life skills education"

Life skills are not solely possessing certain abilities (vocational jobs), but also have functional basic supporting abilities such as: reading, writing, solving problems, collaborating and using technology. Life skills are skills that can practically equip an

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individual in overcoming various kinds of life challenges. The main problem in this study is "Does the learning process, that is reviewed from the devices and teaching materials in schools, reflect the PBL learning model with integrated life skills?".

It is necessary to make a change in the learning process in junior high schools so that learning outcomes are in accordance with the competencies to be achieved. One of the learning model considered capable to solve this problem is Problem Based Learning (PBL) model. Problem-based learning is a learning approach that presents contextual problems to stimulate students learning optimally. According to Redhana (2012), the learning model based on Problem Based Learning (PBL) is effective for improving students' critical thinking skills in science subjects. Through PBL, students are given real-world problems with the aim that students have critical thinking skills with high-level thinking skills.

The purpose of this study was to describe the applicability of Problem Based Learning (PBL) model integrated with life skills in Integrated Science learning based on literacy of junior high school students in Kupang City. The benefit of this study is to find out the applicability of the PBL model implemented in junior high school by integrating life skill education which is a step in training students to solve various problems found in their lives.

APPROACH & RESEARCH METHOD

This was aqualitative research with descriptive approach. Data collection was carried out by interviews, participant observation, and documentation. The research subjects were three VII grade Integrated Science Science teachers. Data analysis techniques usedvalidity test namely triangulation technique. The study was conducted by analyzing and examining syllabus, lesson plans, and textbooks used in learning based on PBL syntax. The application of the model was based on the examined syntax. There are problem orientation, organization to research, assist independent / group investigations, present artefacts / exhibit, and analysis and evaluation of the problem solving process. In this study, observation sheets were used on Syllabus and lesson plans, as well as teaching materials suited with 2013 curriculum and documentation. While the syntax in the textbook was also analyzed based on PBL steps in the learning process.

The procedure of research conducted in the study was adopted from Marlina, R (2012), with the following stages:

1. Preparation stage
    a. Conduct an initial survey, explore the literature, in this case looking for information
    b. regarding the implementation of PBL syntax based learning integrated life skills.
    c. Determine the research subject
    d. Making research instruments (observation and documentation sheets)

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2. Implementation phase
   Retrieve data in the field.
3. Data processing
   a. Collect data through observation and documentation.
   b. Group and identify collected data. The data obtained is analyzed by percentage (%) then expressed in statements that can provide answers to the problem under study. Based on the results of data processing, conclusions are then drawn.
4. Reporting stage
   The scoring in this research instrument used Likkert scale. Calculation of data used the form of checklist for scoring learning process observation which consists of devices and teaching materials used. Analysis of the observation plan lesson plan is done by calculating the percentage.
   Percentage of score on item (n / p) x 100%
   n = score obtained
   p = number of scores in one item

RESULTS AND DISCUSSION

Based on the observation data and documentation of the preparation of learning plan (syllabus and lesson plan), as well as the textbook, the percentage (%) results as presented in the table below:

Tabel 1. Percentage of life skill to PBL model integration in learning plan and learning material

No	Sintaks PBL	Perangkat dan Bahan Ajar			Rata rata %
		Silabus %	RPP %	Buku ajar %	
1	Problem orientation	10,09	27,09	23,09	20,09
2	Organization to research	11,08	16,08	15,11	14,09
3	Guided self or group investigation	10,08	20,06	15,13	15,09
4	*Artefax/exhibit*presentation	14,98	18,36	5,13	12,69
5	Analyzing and evaluating problem	5,85	10,83	21,36	38,04

Sumber : Data yang diolah

Based on Table 1, it can be seen that the highest average is in the syntax of analyzing and evaluating problem solving process that is equal to 38.04%, followed by syntax of problem orientation which is equal to 20.09%. The average is accumulated by analyzing all the tools and teaching materials. It shows that in each learning process a step has been taken to analyze arising various problems related to the taught material and begun with problem orientation.Parallel to observation results, teachers indirectly provide theories or concepts to students at the beginning of delivering learning material by providingquestions or problems to discuss, as the problem given in PBL requires an explanation of a phenomenon.

Based on the syntax of the organization to research, teachers help students to define and organize learning tasks related to the problems given. Based on the tools and

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teaching materials used, it is obtained an average of 14.09%. From students side, PBL provides clues for students to learn and think about problems givenand how to resolve it immediately. Further, related to the syntax or steps of PBL are independent or group investigations. In solving problems given by the teacher, students carry out experimental activities, obtain data with the final goal can take a conclusion. The difference between PBL and conventional models in practicum or experiment are the steps of experiment.In PBL, Students try to find or arrange it themselves with group members. The task of teacher is to guide for the right information.

The lowest average based on the syntax is the presentation phase of artefax or exhibit. Based on Table 1, there is an average value of 12.69%. Viewed from the observations result, basically the teacher has applied the syntax. The percentage is obtained from the average analysis of textbooks used in the learning process. The analysis of the Integrated Science textbook was taken from the seventh grade textbook, the most widely used book in the learning process. In accordance with the results of the textbook observation, the syntax of students' work presentation has not maximally produced as the result of the assignment

Basically, the teacher has implemented PBL, but it is not done routinely or thoroughly. Based on the results of interviews and questionnaires given to teachers, they assumed that the application of the learning model takes a long time compared to a non-PBL model so the PBL model is rarely applied in the learning process. The material achievement is the teacher's consideration in completing all the basic competencies given to students. Based on the results of the study, it shows that in each learning plan contains PBL model syntax, but the proportions are not balanced.

The syntax of PBL from the start in the form of problem orientation to the last, namely analyzing and evaluating the problem solving process shows that the PBL process requires students to be more independent with their learning affairs. Students must be responsible for their learning, through the study plan step, a good documentation system, and later they must have the courage to carry out an evaluation at the final stage. Based on the PBL syntax, there are several advantages of the learning model, which lies in designing the problem. Through the problems given to students it is hoped that it can stimulate and trigger students to carry out learning well. The PBL model provides an opportunity for students to explore and collect and analyze complete data to solve the problems faced and the teacher's job is to facilitate it. The objective to be achieved is the ability of students to think critically, analytically, systematically, and logically to find alternative solutions to problems through empirical data exploration in order to foster a scientific attitude. According to Arends (2008), PBL is a learning model where the role of the teacher is to offer authentic problems, facilitate investigation, and support student learning. The characteristics of learning using the PBL model are students acting as facilitators in learning, are required to be responsible and independent, and important elements in the design of learning in the form of problems as a driving force for investigation. According to Eviani, et al. (2014), states that learning

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with a problem-based learning model has a high influence on improving science literacy in science learning.

The final form of PBL processes in groups is oral presentations and written reports, or artefax / exhibit presentation. Based on the results of the research, this phase obtained the lowest average score. Thus the teacher's job is to improve students' ability to communicate, both when in group and in front of the class. Hence oral presentations lesson plan has been done by the teacher, it still shows a low percentage. Thisis also caused by the absence of special teaching materials designed by teachers as innovative and creative teaching materials in practice which is oftenly overlooked. This research is the initial research of PBL-based life skill teaching material development research that will be carried out in 3 (three) Junior High Schools in Kupang City.

The PBL process, as a form of learner centered learning, considers that responsibility must be recognized and held firm by students. Responsibility form can be interpreted as a step in self-management for students. Based on these principles, relation between ability to be responsible and performance can be considered as an awareness of certain skills application. Furthermore, students are expected to be able to recognize and overcome various obstacles around them. This is a step in to equip on students later on, so that they are able to adapt to global demands and challenges.

In fact, there is no devices and teaching materials based on life skills education in junior high school learning are analysed yet. On conducting interviews with teachers, there are still differences in opinion regarding to the nature of life skills education, which is recently has been recommended by the Government, although it does not require a specific curriculum. Teachers assume that life skills education is related to vocational education. In the analyzed textbook, it still shows life skill material implicitly but not specifically. This causes graduates to lack in provision related to life skills in the midst of society.

Based on the concept of life skills oriented education, life skills aspect must be deliberately designed to grow in learning activities. The design starts from the preparation of learning programs including learning tools, teaching materials and evaluation systems. Teachers are required to reorient learning subjects to develop life skills. According to Yadaf and Iqbal (2009), life skills-based education is important for numerical and literacy skills. The Life Skills field is not only related to active learning pedagogy, but also related to deal with the balance between knowledge, attitudes, and skills. Life skills education is not new and not an original topic. This means that the learning process carried out in schools has also fostered life skills but the achievements are still limited to the nurturant effect that automatically formed along with the mastery of subject matter.

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CONCLUSION

Based on the results of the study, it can be concluded that PBL Model provides an opportunity for students to explore, collect and analyze data completely to solve the problem they face. The results of the analysis show that in each learning plan there is a syntax of PBL model, but the proportions are not balanced. Model applicability is based on the examined syntax, namely problem orientation at 20.09%, organization for researching at 14.09%, assisting independent / group investigation at 15.09%, presenting artefax / exhibit at 12.69%, and analyzing and evaluating overcome the problem of 38.04%

The learning process reviewed from teaching devices and materials in schools has reflected PBL learning models integrated with life skills, but the application of life skills education is still limited to the nurturant effect. An innovative and creative learning plan needs to be carried out by Integrated Science teachers, especially in junior high schools so they can improve the quality of education in general.

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