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MAPPING AND DEVELOPING QUALITY OF LEARNING GEOGRAPHY IN SIJUNJUNG DISTRICT WEST SUMATRA PROVINCE

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Abstract

This research was aimed to: 1) reveal the map competencies of geography learners in senior high school, 2) reveal the factors causing students have not mastered the subject, 3) formulating the problem-solving model implementation in various related institutions.

The population in this research was all students of class XII high school located in Sijunjung district. Sampling was carried out in stages and proportional to the number of students in each school and grade. To determine the cause of the teaching and learning problems, the researcher used interviewing teachers, principals, students, and parents. Then, the researcher did the focus group discussion which involving teachers, principals, parents, and district education officer to formulate a model of education quality.

Based on the result of national exam in Sijunjung district, it can be concluded that 1) the understanding of the standard competency / basic competency on geography which were tested on national exam is very varied, even the basic competency were not at all understood by the students. Standard competency / basic competency problems are at geographical approach, the principles of geography, types of rocks, types of wind, types of rain, infiltration factors, the spread of animal and plant life, sex ratio, counting scales, remote sensing components, image photos by spectrum, industrial patterns spreads, 2) the factor was that the standard process that includes learning method, learning tools, and instructional media used wasn't be optimized, 3) the implementation of the models are by using technical assistance for teachers to the standard competency/ basic competency of geography subjects, workshops or training to increase the competency of teachers in the learning process and the evaluation in the geography subjects.

Key word: Mapping, Developing Quality, Learning Geography

INTRODUCTION

One of important indicators of the quality of education is based on the result of learning. Learning outcomes is a reflection of the students' achievement of learning objectives and can be used as important information to improve learning outcomes themselves. Learning outcomes in general can demonstrate achievement of learning goals in a comprehensive manner both from the cognitive, affective and psychomotor like taxonomy instructional objectives put forward by Benjamin S Bloom. Learning outcomes can also be used as an entire source of information about the quality of education in individual, school, country, district and province.

In national level, the learning outcomes are indicated by the results of National Examination (UN). From the UN in 2011 was known that there were 1,450,498 students or about 99.22 percent from the total number of 1,461,941 students at the high school and MA passed the examination. While in West Sumatra Province, it was found that there were 1,167 participants from 43.211 students of SMA / MA did not pass the National Exam. The failure rate of SMA / MA West Sumatra is number 28 out of the 33 provinces in Indonesia.

While the number of students who also failed in the National Exam there was as much as 11 443 students. Based on the subjects tested on UN 2011 of social science class, it was noted that the mean score of highest subjects was Geography with score 8.26. Viewed from the students' social science class receiving level against the mastering of standard competency (SK) and basic competence (KD), the mean score of highest subject was geography, with highest score 100,00 and the lowest score was 0,00. It means that the all of the participation of UN understood the basic competence well and there was none of the basic competency could be answered correctly by the participants.

Based on the facts, it turns out that the level of understanding of standard competency and basic competency in all subjects tested on the UN is very varied, not all of participants understand the basic competency. In order to improve the quality of learning in the future, it is needed to do competency mapping in high school students for each subject and analyzing the causes and finding its solutions and its implementation model of problem solving.

METHODS

The design of this study started from the students' learning outcome document of Geography subject in the class XI, particularly on its standard competency/basic competency of each subject, then performed observations to selected school/class selected as sample. The observations included observation and giving questionnaire that are used to see, observe and analyze the problems faced by the students and schools in the learning process and geography learning.

Furthermore, Focus Group Discussion (FGD) was held among team of researchers with relevant officials in the education department, the school principal, subject teachers, parent representatives, and student representatives. The results of FGD were used to compile a list of problems and its alternative solutions. And then, the researcher carried out the preparation of the solution to overcome the problem and the modeling to formulate an action plan to improve the quality of education in this district. The basic framework of the study is presented in Figure 1 below.

Figure 1. The basic framework of research mapping and education development (PMMP)
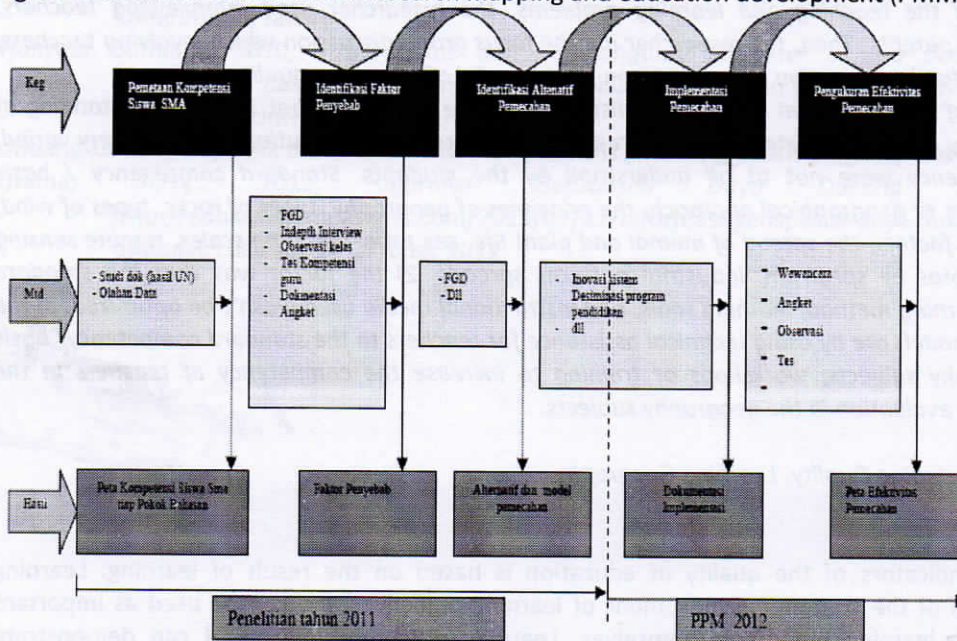
While, figure 2 shows the flow of the research.

Figure 2. The flow of the research
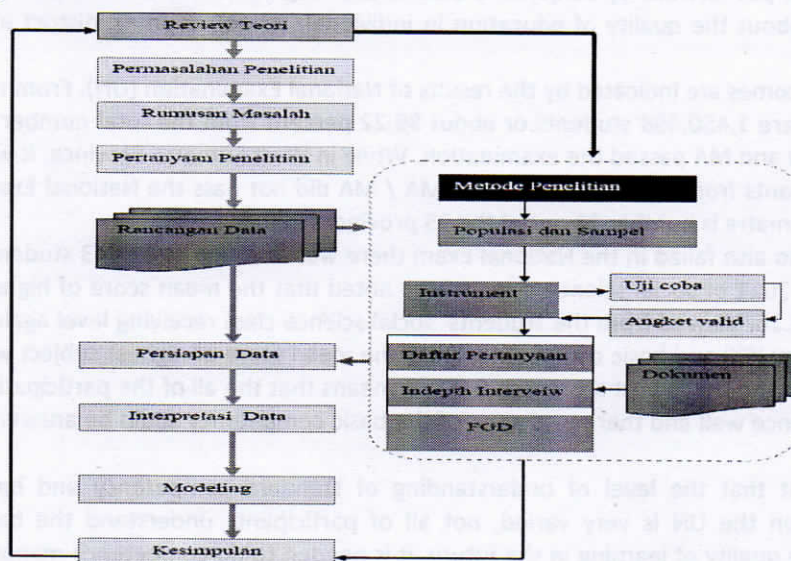
The population in this study was all of class XII high school students in Sijunjung district. The sampling was done by stratified and proportional to the number of students in each school and classroom. The output of each activity in the research stages are:

1. The mapping of material understanding based on the score of class XI students' learning outcomes which become a sample of the research, in accordance with the minimum passing criteria (KKM) of each standard and basic competencies that have been set.
2. Information about the factors that causes students' misunderstanding on standard competency /basic competence in the subject / subjects used in UN
3. The formulation of valid modeling to improve the quality of education which is ready to be implemented concretely.

Based on the types and sources of the data, the data collection is interactively done through observation and interview, while for deeper study, the researcher will use FGD. The stages used are as follows. First, the collected data is tabulated, processed and then analyzed based on its available types. The quantitative data in the form of numbers were analyzed using descriptive statistical analysis tools and presented in the form of frequency, mean, mode, and median. While for qualitative data which are in the form of explanations and descriptions of the respondents is being interpreted and translated, then classified for the same group in the same phrase. If the expressions are most of the same with the other information and most of the informants are agreed with the statement, it can be said that the causing factors are valid.

RESULTS AND DISCUSSION

1. The map of high school students' competency in geography Subjects

In Sijunjung district, there are 10 state high school and there is no private school. Based on the results of the study, it is found that problematic standard competency and basic competency in geography subjects in 2008 was 65%, in 2009 was 40%, and then dropped dramatically in 2010 to 11%. This condition reflected an increasing or improvement of the learners' understanding in geography materials of high school level.

The problematic SK/KD in geography are its approach, its principles, earth, rock types, types of wind, rain type, infiltration factor, the spread of animal and plant species, sex ratio, counting scales, remote sensing components, image photos by spectrum, and spreading patterns of industry.

The Competency Mapping of UNAS 2008

NO	The ability tested	Question number	%
1	Describing the industrial driving factors in developing countries	40	1.97
2	Showing the particular form of earth surface	7	1.97
3	Identifying the factors that influence the centralization of industrial sites	26	3,23
4	Identifying the components of remote sensing	31	3,76
5	Calculating the actual distance on the earth surface with the scale on the map	28	6,27
6	Classifying the photo image by its spectrum	32	8.42
7	Determining the transfer animal	21	10.04
8	Identifying geographical approaches to review the incident	2	12.01
9	Determining various types of wind	14	12.72
10	Identifying the geographical principles examining the geosphere phenomenon	3	12,73
11	Showing the examples of the same fauna between oriental and Ethopian	20	13,44
13	Showing the types of rocks	4	25.27
14	Classifying industries that belong to various industry	25	25,27
15	Identifying indicators of developing countries	39	26,17
16	Identifying the elements that affect the distribution of flora and fauna	19	31,90
17	Collecting the climate of an area based on classification of Schmid-ferguson	15	36,92
18	Classifying various ocean currents on the earth surface	18	42,48
19	Describing the sex ratio	22	43,37
20	Describing the various forms of earth tectonic processes	6	45,52
21	Determining the atmosphere layers in the image	11	46,42
22	Identifying the traits that depicts the composition of the stationary population	24	52,69
23	Explaining the causes of Indonesian earthquakes	5	53,77
24	Determining the load of dependence	23	58,60
25	Identifying elements of basic level image interpretation	33	59,14
26	Classifying tge village based on its development	36	59,14

The Competency Mapping of UNAS 2009

No	The ability tested	Question number	%
1	students are able to show the characteristics of a pyramidal population	24	7,65
2	students are able to determine the rivers pattern of an particular area shown	18	11,5
3	Students are able to differentiate the characteristics elements of exogenous force (weathering and erosion)	10	15,4
4	student are able to determine the types and the forms of projections	30	15,4
5	Students are able to interpret the declivity slope after being shown a topographic maps	31	16,54
6	Students are able to determine the reason why in some particular seas have many fish	19	16,78
7	the students are able to determine the form of seabed morphology from a picture of cross longitudinal seabed	20	19,48
8	Students are able to show the shape of earth surface resulted from the pattern of tectonic plate movement	4	21,4
9	students are able to determine the reason why a region become a growth center	38	30,43
10	students are able to identify some ways of disasters (earthquakes) mitigation	9	33,88
11	students are able to identify the strengths of SIG based on its indicators	33	37,78
12	students are able to determine the criteria of a developed countries but in the fact it is classified as developing countries	39	37,78
13	students are able to determine types of industries that should be developed based on a given land use	28	43,59
14	students are able to identify the characteristics of forest in Indonesia which affect human life	22	44,83
15	Students are able to identify factors driving the industry in a region	27	48,73
16	students are able to classified developed countries and developing countries based on the list of countries given	40	53,37

The Competency Mapping of UNAS 2010 A

No	The ability tested	Question number	%
1	Showing the picture of earth surface shape resulted from the pattern of tectonic plates movement	5	1,54
2	identifying geosphere principles in the real life	3	1,85
3	Determining the pattern of settlement of a region based on an earth surface shape	44	5,23
4	Determining the city based on its historical growth	43	10,46
5	Determining the stopping point between two cities based on the picture	45	10,77

The Competency Mapping of UNAS 2010 A

	Ability tested	Question number	%
1	Specifying particular animal on earth	21	0,32
2	Determining the Indonesian flora	23	1,89
3	Determining the specific climate characteristics in a region based on the data	17	2,84
4	Determining the characteristics of a particular types of soil	13	5,68
5	Determining which approach is used to analyze the geosphere phenomenon	2	15,14
6	Diferentiating lava and volcanic mudflow	8	16,09
7	Determining the potential of a village	46	22,71

Based on interviews with some geography teachers, there is some SK / KD difficult to be taught by them in the learning process, some of them are the principles application, geography concepts and its approaches, remote sensing, mapping, zone and zoning.

2.   Factors that cause students not mastering the standard and basic competence of the subject

Generally, based on the collected data and technical assistance reports in 2008, 2009 and 2010, the prominent factor is that the standard process that includes teaching methods, learning, learning tools, and instructional media have not been optimized. In addition, the means and infrastructure standard, standard

management and standards assessment are things that are still weak and need to be considered in order to find the best solution for improving the quality of education. Other hand, the standard cost is also a classic problem experienced in Sijunjung district.

Furthermore, specifically n Teachers and Education Personnel standard are still minimal, and many teachers still teaching out of their expertise. This greatly affects the learning process and results in Sijunjung districts. Moreover, community awareness and participation in education is still relatively low.

Local Government and the UNP should make a breakthrough and invite immigrants' participation to raise the community awareness and participation in education. Therefore, it needs the cooperation of between government, the UNP and the immigrant.

The study education quality theory is influenced by many factors. Education process is said to be high-quality if the coordination, harmonization and integration of educational inputs (teachers, students, curriculum, money, equipment, and other matters related) conducted in harmony, so it can create a fun learning situation (learning enjoyable), capability of encourage motivation and interest in learning, and really able to empower learners.

The word "empower" means that learners are not merely master the knowledge that is taught, but the knowledge should become the learners' charge, being lived, and being practiced in daily life, and more importantly, the learners are able to learn continuously.

In general, based on data obtained from deeper interview, observation learning process in the classroom, FGD, teacher competency test, observation learning devices (standard process), standard observations educational facilities, and the observation of the eight standard that has been done in research, it can be summarized that the factors causing the learners have not mastered the standard competency / basic competency in each target areas (countries / cities) are presented in Figure 3 below.

Based on Figure 3, it can be discussed that factors influencing the low quality of education in Sijunjung district are found to have 14 issues and 2 problems that lead to the low quality of education Those factors are:

a. Lack of official development and supervision
b. MGMP's management field of study which is not include in UN being not optimal because of limited funds and human resources.
c. Lack of parents' participation on students' learning
d. The method in learning is not varies and tend to use lecturing method
e. The limited use of IT and conventional media and in PBM
f. Various quality of PBM
g. Various of teacher competency
h. The eight standard in education have not been fulfilled
i. The limited use of educational facilities
j. Minimal implementation of the PBM
k. The limited use of learning resources
l. Lack of academic and non academic supervision
m. School management and its managerial is weak
n. Lack of the school cooperation and schol

Figure 3. Fishbne diagram of causing factors in the low of education quality
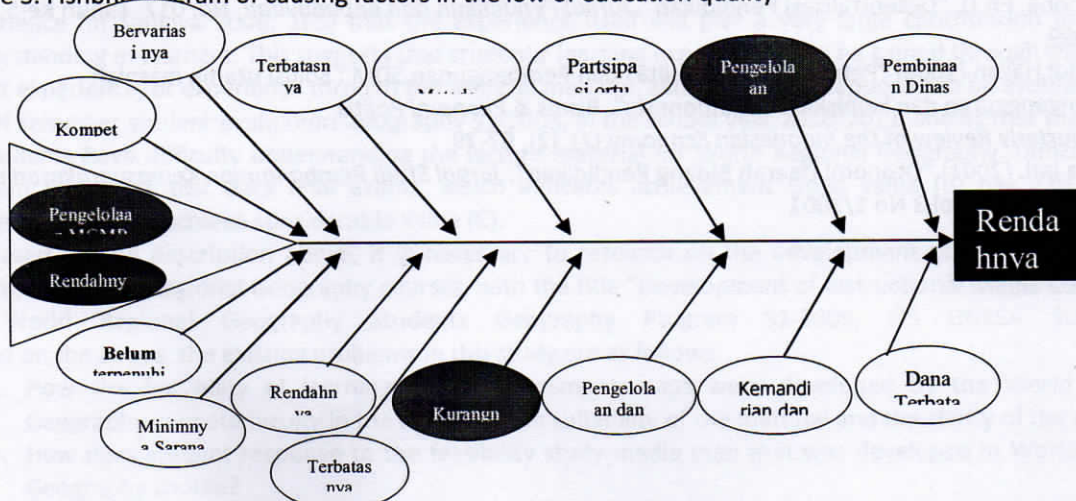
3. The Implementation Modeling for Kab.Sijunjung

Based on the problem analysis above, the proposed activities models are as follows are:

- Technical Assistance for geography teachers starts from planning, learning implementation, and learning evaluation
- Workshops or training to improve the professional competence of teachers in the learning process (deepening of materials, especially on the unfinished SK / KD) in 9 subjects tested in the National Examination
- Training or workshop classroom action research (PTK) to improve the ability of teachers to develop learning model and familiarize teachers in writing the outcome of learning development

Based on the observations and interviews in the field, there are still a geography teacher who has not understood how to make the device accordance with KTSP learning and refer to Permendiknas number 41 of 2007 about standard learning process

Deficiencies ability of teachers in presenting learning materials are caused by some irrelevant educational background of geography teachers, it forces them to study harder. It is suggested in this study to have workshop in difficult material, which are expected to facilitate teachers in understanding the material.

As a self-evaluation for teachers, composing an action research needs to be done, since there has been a geography teacher who has not been able to design a classroom action research.

Conclusion

- Based on the mapping results of national examinations in geography subjects in 2008, 2009, and 2010, it can be seen that there is an increasing of learners' mastery.
- There are 14 factors that cause the low quality of teaching geography in Sijunjung district
- It is necessary to have technical assistance of making devices in geography learning, workshops to help understanding materials, and classroom action research workshop.

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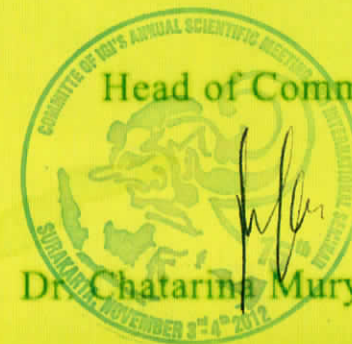AWARENESS IN REALIZING THE NATION CHARACTER

As Paper Presented

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Dr. Chatarina Muryani, M.Si