The Effectiveness of Geography Learning and Its Effect on Disaster Response at the State Senior High Schools in Padang City

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Abstract
This research was aimed to describe and analyze the effectiveness of Geography learning at state senior high schools in Padang City and its effect on disaster response. The research method was Mixed Method. The data were collected through observation, interview and documentation. The analysis of the data suggested that the effectiveness of Geography learning at state high schools in Padang city was effective to very effective. It was influenced by teachers’ ability in opening the lesson and motivating the students, teachers’ strategies and supported media. Learning evaluation consisted of student’s knowledge evaluation (written test and task), behavior evaluation (peer’s observation and self-assessment), and skill evaluation (Practice, Project, and Portfolio.) Students’ learning activity and response at state senior high schools in Padang City were categorized as effective to very effective. This was influenced by school social environment, student’s socio-economic factors and school physical environment. Regarding students’ learning mastery, it was found that schools located in the centre and the outskirt of the city obtained > 75 for individual learning mastery. Furthermore, for classical learning mastery, the schools in the downtown achieved 97.5% or more than 75 (completed). Meanwhile, the schools located in the outskirt had yet to score more than 75 or it only scored 74%. The cause was the difficulty in lesson planning, for example preparing media for learning. In addition, the difficulty was also affected by technological factors (smartphone) and student’s social environmental factors. Moreover, from the evaluation, it was found that the significant problem was time allocation for assessing the learning outcomes so it had an effect on disaster response in school, namely student’s readiness in receiving learning materials, teacher’s competence and the availability of learning facilities and infrastructures. Some prior policies regarding the effectiveness improvement are the use of learning media, the development of learning strategies, the development of learning model and method, improving learning facilities and supporting infrastructures as well as increasing teachers’ interest in participating in the forum of subject teachers (Musyawarah Guru Mata Pelajaran).

Keywords: Learning Effectiveness, Disaster Response, Geography Learning

Introduction
Geography learning materials in high school include spatial, environmental and territorial aspects. The object of geography learning is geosphere which consists of atmosphere, lithosphere, hydrosphere, and biosphere. Therefore, the explanation of the subject materials should be adapted to the level of students’ psychological development for any educational levels. Moreover, commonly in school, learning is related to the effort in improving learning effectiveness since effectiveness is a measurement to know to what extent the learning goals or objectives have been achieved. Effectiveness is defined as a basic principle to achieve goals or objectives in any organizations, activities or programs.

According to Sinambela (2006), a learning is effective when it can obtain desired goals (learning goals and students’ achievement goals). A learning process is effective when the school can establish set goals or objectives. Goals and objectives are measured by analyzing the learning process considering teachers’ management in learning process, students learning activity, and classical achievement of students’ learning.
outcomes. Teachers are required to have ability in managing learning, and this is a challenge for them. Teachers should think and act professionally. As mentioned in teacher competence, a professional teacher is the one who is competent. In other words, teacher competence can be defined as teacher’s ability and authority in performing competently his/her teaching profession. Teacher’s competence includes professional competence, pedagogical competence, social competence and personal competence. Teacher’s ability in managing learning process in the classroom is categorized as pedagogical competence. If learning process management is well performed, it means that one of effective learning indicators is considered to be good.

An effective learning can also be seen from student activity in the classroom. Students’ active participation in learning process can be seen from student-teacher interactions and student-student interaction that happen in the classroom. Those activity will make a lively and conducive classroom atmosphere which provoke students to maximize their ability. Students activity will also result in increased knowledge and honed skill that lead to the improvement of students’ achievements and learning outcomes. Besides that, as mentioned before, centralized-approach based educational organizations, before era of regional autonomy, left various problems. One of educational problems is accessibility. Accessibility problem in education relates to geographical and demographical conditions and social culture. In other words, external factors can influence the effectiveness of learning process, for example student’s social factors and other factors. As suggested by empirism theory which stated that student’s learning outcomes are considerably influenced by environmental factors.

In his study about the implication of 2013 Curriculum based assessment of learning outcomes for Geography subject at state senior high schools in Padang City, Asep (2015) found that some students did not actively participate in the learning process, teachers were lack of knowledge of how to use learning technologies, and inadequate learning facilities so that the assessment can not be conducted maximally. Therefore, based on those problems the researcher conducted a study in schools located in the centre and the outskirts of Padang City. Generally, people assume that learning process at schools in the downtown is effective rather than ones located in the outskirts of the city. From previous study, it was found that students’ inactivity in learning process at schools located in the outskirts was caused by students’ social factor such as their social status as people at the bottom. Some students were burdened by house chores given by their parents and other students were influenced by their friends who did not go to school. Whereas, students’ inactivity in learning process found in the schools at the downtown was caused by the negative influence of technology such as Smartphone. Some students were found playing with their smartphones while studying that the students were not focus to participate in learning process. Another reason was a quite distance between students’ houses and the schools that sometimes made students coming late to school. It usually happened to students who were studying in the schools located in the centre of the city but lived in the outskirts area. These student were sometimes actively participate in the learning process and sometimes were not.

In summary, it can be concluded that the main problems that hinder the improvement of learning effectiveness at senior high schools in Padang city are students’ inactivity which is affected by their social factors, teachers’ weaknesses in using the technologies for learning, the negative influence of accessibility and technology on students’ focus on learning process. Based on the findings from the field, the researcher assumed that teachers are responsible to solve the problem regarding students’ lack participation in the learning process. A good learning process cannot be separated from teacher’s ability in designing and practicing a learning. In line with this statement, Wrightman in Usman, (2006) stated that teacher’s role is creating a series of behaviors related to the activity in certain situation and the progress of behavior changes which results in students’ development. Teacher plays a role as a guide for students to develop and change themselves to be a better people and this can be done through a good learning management. The factors that affect the learning effectiveness are strategy implementation, teacher’s management and student’s participation in achieving learning goals. For example, one of the materials mentioned in curriculum of
Geography for senior high school students is disaster mitigation. Padang City is prone to natural disasters such as Tsunami. The topic about disaster mitigation is very related to the situation of Padang City. By using this material, Geography learning effectiveness can be seen through its effect on the response of school community about the disaster, whether it is in learning management done by the teacher, students activities or other affective factors.

Method

Based on the mentioned problems, this research purpose is to study the effectiveness of geography learning in state senior high schools in Padang City and its effect on disaster response considering the schools’ locations (centre and outskirt of the city). So, this research employed mixed method research. The data were collected from the research participants, Geography teachers who worked at state senior high schools in Padang City. This research used purposive random sampling to take the sample of the participants. They are Geography teachers from state senior high school 3, 6, 10, and 13 in Padang City. The information were obtained through interview, observation and documentation. This data will be described, scored and analyzed by using AHP (Analytical Hierarchy Process) method (Eriyatno dan Sofyar, 2007).

Result and Discussion

Learning Management

Opening and Closing of the Lesson, at State Senior High school 10 and 16 Padang, in developing students interests and desires in learning the teachers tended to do apperception as evaluating the previous topics or introducing new key terms to students which were related to the materials that are going to be taught. Teachers can make use of those activities to ask some questions which are related to the previous materials. Meanwhile, Geography teachers of State Senior High School 3 and 13 only asked the students about what topics they learnt before and their knowledge about current materials that are going to be taught.

Lesson Explanation. To explain the lesson, Geography teachers at Senior High School 3 Padang use terms that are simple and easy to understand. Then, they give an illustration in the board so that the students could easily understand the materials. At State Senior High School 10, the illustration is related to the issue and case found in the field. After that, the teachers ask the students to analyze the case. In contrast, the teachers in State Senior High School 13 and 16 tend to only use the textbook materials and rarely give any feedback to the students. However, it was found that the teachers in State Senior High School 16 sometimes discuss and analyze the issue and case found in the field.

Teaching Strategies, teacher should have a good ability in managing the classroom so that they can achieve learning objectives. In State Senior High School 10 Padang, the students were asked to discuss the materials and teachers played a role as facilitator. On the other hand, in State Senior High School 3, 13, and 16, the strategies used by the teachers could not develop students’ interest and desire to think and discuss with their peers and the students monotonously listened to the teachers.

Variation, means the ways teacher used to manage the classroom for example teacher’s voice, students’ attention, facial expression, hand movements and the place when the teacher stands. All of these variation can be useful to manage classroom atmosphere. The data from the field showed that Geography teachers of some schools (State Senior High School 10, 3, 16) studied in this research had used proper variation like their voice can be heard by the students when teaching, attract students’ attention by using hands movement, teachers did not only stand in the same spot and they also interacted with the students who had difficulty to understanding the materials. Unfortunately, the teachers in State Senior High School 13 did not use variation in teaching. Teachers’ voice was low that it could not be heard clearly and they chose to
Method, in this research, the reseacher used term ‘method’ to define the way teachers choose and use the instructional media which are appropriate with and support the learning objectives. In the field, it was found that State Senior High School 10 ad 3 in Padang use projector as a media for teaching and learning.

Asking the Questions, teachers should pay attention to the questions asked to the students. The questions should be concrete and clear so the student could give proper feedback. Then, the questions should be addressed to all the students so they have same opportunity to participate actively in the classroom. Geography teachers in State Senior High School 10, 3, and 13 have applied the “asking the questions” indicators in their classroom. The questions given were good and clear and students participated actively in the classroom. But, the same information could not be found in State Senior High School 16 where the teachers did not give the questions equally to their students.

Based on the purpose of this research regarding learning evaluation, the reseacher found that Geography teachers in state senior high schools located in the centre and the outskirt of Padang City did learning evaluation corresponding to the decision made in curriculum 2013. The evaluation includes evaluating students’ knowledge, behavior, and skill. Unfortunately, skill evaluation could not be conducted because of the lack of the time, finance and materials which unnecessarily need skill evaluation.

Student’s Activity in Learning Process.

Students’ Learning readiness students’ Learning readiness includes their physical and psychological condition and material readiness. The data from observation showed that students were physically ready to participate in the learning process. Students’ physical readiness was affected by teachers’ apperception in the beginning of the lesson. Teachers encouraged and gave proper response to the students with the result that students were motivated to participate in the learning process. However, in State Senior High School 16 Padang, the reseacher found some sleepy students in the class and this means that the students were not physically ready. Material readiness is related to students’ learning supplies. Students’ material readiness is closely related to their financial condition and studiousness. For example, in senior high schools located in the outskirt of Padang City, some students could not calmly do the given task in their own chairs. They walked to other peers’ chair to borrow pens or other learning supplies. Regarding Student Worksheet (LKS), almost all the schools in this research had provided students with LKS. Even though some students had financial problem, LKS’ fee was covered by School Operational Assistance Proramme (Dana BOS) which is given to the schools located in the outskirt of the city and by Cross Subsidies which is for the school in the downtown, for example the one received by State Senior High School 10.

Students’ response in the learning process. This relates to students’ activity in the classroom. the reseacher studied students’ behavior and attitude when doing the activity in the classroom. The information from the field suggests that most of students in all of the schools were well-mannered and polite both to their teachers and other peers. Then, students were paying their attention to the lesson right after the teachers did apperception. However, as mentioned before, there were still some students who were sleepy when learning took place, for example the students at State Senior High School 16. When they did discussion or another types of learning activities, students of State Senior High School 10 and State Senior High School 3 actively participated in question-answer session or discussion compared to other schools, especially the schools that are located in the outskirt of Padang City.

Learning Mastery

Both state senior high schools in the downtown and in the outskirt had met more than 75 percent (>75) of the criteria set for individual mastery in Geography. However, concerning classical mastery in Geography, different result was found between the schools in the downtown and the ones in the outskirt of
the city. State senior high schools in the centre of Padang City scored 97.5% or >75 of the criteria set while the ones in the outskirt of Padang City only scored 74% or <75. The following charts show the result of individual and classical mastery between state senior high schools located in the centre of Padang City and the schools located in the outskirt of Padang City.

The Problems in Learning Effectiveness

The problems appeared in learning activities were the students who played with their phones in the classroom which was one of the rule violation, students’ environmental factors (financial and social), and monotonous teaching method used by the teachers that made students passively participating in the classroom.

The Effect on Disaster Response

Based on the program and material development of Geography subject mentioned in the curriculum, the researcher wanted to know about the response of school society toward disaster risks. There was a different result between the effect of learning effectiveness on disaster response at senior high schools in the downtown and the schools in the outskirt of Padang City. Learning process in the schools located in the outskirt of the city was found to be less effective compared to the schools in the centre of Padang City. As explained before, the reason was students’ social factors existed in their neighborhood. Another reason was lack of facilities or media that support their learning activity in the classroom. The students only studied about disaster in Geography classroom based on written information from the textbooks. Consequently, they did not know and aware the risk of a disaster and they did not know how to give proper response on the disaster. In contrast, the effective learning process of geography in senior high schools located in the centre of Padang City affect students’ response toward the risk of the disaster. The reason behind that effectiveness was adequate learning facilities or media that support learning activities in Geography class. Moreover, the researcher also found that the teachers provide the students with the current or factual issues, for example the ones related to disaster mitigation, and they discuss them in the classroom. So, the students were more self-aware of the risks of disaster.

The Policy Direction of Geography Learning Effectiveness in Senior High Schools in Padang

From this research, there are three policy alternatives of Geography learning effectiveness in senior high schools in Padang City, namely: 1) Teacher learning management 2) Students’ learning activities, 3) Students’ Learning Mastery. An important characteristic of consistency ratio is that the data should be consistent with value <0.1. the researcher calculated the consistency ratio of the policy hierarchy and it’s value was 0.074. This means the hierarchy is consistent and applicable. To decide the prior policy of Geography learning effectiveness di senior high schools in Padang City, the researcher also calculated the value(eigen values) for every policy alternatives.

Mentioned findings support the theory about the factors that affect learning effectiveness. They are 1) Learning Strategy and Method, 2) Learning material, 3) Media, 4) Learning Evaluation, 5) Teacher’s teaching style. This research revealed that the affecting factors of Geography learning effectiveness in senior high schools in Padang are the mastery of learning material, teaching and learning methods, variation in learning, and the implementation of media that support learning objectives.

Furthermore, learning competence is the ability to do and organize learning activities. The activities include how to control and manage learning sources which then used to achieve learning objectives, the ability to open and closing the lesson, the ability to teach the lesson, the ability to motivate, the ability to use learning strategy, and the ability to use learning media. In addition, PERMENDIKNAS (The Regulation of Ministry of Education) number 65 year 2013 stated that the expected learning that is managed by educational organization or institution should be interactive, inspirational, fun, challenging, encouraging students’ active participation, giving enough space for students’ creativity, works, and independence which support their
talent, interest, and students’ physical and psychological developments. Thus, every educational organization should have lesson planning, teaching-learning implementation, and learning process evaluation in order to improve graduates’ competence efficiency and effectiveness.

One of factors that affects students readiness in learning and participate in the classroom is students’ financial readiness. For example, in this research, the researcher found that some students who studied in the outskirt senior high schools were not ready to participate in the classroom since their family financial condition was not as good as those who lived and studied in the downtown. Consequently, some students did not have enough learning supplies and materials for learning. It is supported by Muhibbin Syah (2011), he stated that the factor that affects students’ learning readiness is external factor for example family. Parental factors such as parents’ characters, family management, family demography (house location), and family’s financial situation are factors that mostly affect students’ learning activity. These factors could affect positively and negatively affect students’ learning process and outcomes. In addition, another factor such as physical environment in the classroom could also affect students’ readiness in learning. For example, in State Senior High School 16 of Padang City, some students were found to be sleepy while learning.

Thus, in order to solve mentioned problems, the school should wisely used the money from BOS or Cross Subsidies. Cross Subsidies is financial aids given by upper middle class student parents to students who have financial difficulties. Cross subsidies are usually implemented in the schools located in the centre of Padang city. These aids helps students’ needs such as learning supplies, textbooks, academic due and others. By doing so, the learning process in the classroom will be more effective and efficient. Meanwhile, the senior high schools in the outskirt of Padang used to be aided by BOS. Students’ Response in the learning process are related to how students’ activities are seen from their attitudes and behaviors. The majority of senior high school students in this research were well behaved and polite when interacted with teachers and other peers in the learning process. In relation to students’ attention in the classroom, students started to pay attention (focus) to the lesson after teacher did apperception.

School is a place for students to receive knowledges from the teachers. According to Syah (2009), school social environments such as teachers, educational staffs and classmates can affect student’s learning passion and learning process. A harmonious relationship between the three can motivate the student to learn better in the school. Individual relationship as action and reaction, acceptance by group members, cooperation with group members will result in the feeling of satisfaction and comfort in school. these things will affect the students’ behaviors. The was a problem found in the implementation of student learning outcomes evaluation or assessment. It was time allocation. In fact, the time allocation required in the implementation of the evaluation was not in accordance with estimated time. Therefore, in the field, teachers’ performance was only related to teaching skill and its administration. A professional teacher has certain characteristics, such as: (1) Commitment for students and learning process, (2) A deep understanding of teaching materials and how to teach them, (3) Responsible to monitor student learning improvement by using any types of evaluation techniques, (4) able to think systematically in doing his/her work, (5) a part of learning society inside his/her professional environment, (6) trying to improve his/her professional quality, (7) devoting his/her times for her/his profession, (8) a compatibility between competence and profession, (9) a role model in the school, family and society. The more characteristics a teacher has, the more professional the teacher is (Soedharto, 1997).

Teacher should be aware and improve his/her competence in managing learning and its elements (planning, sources, methods, media, and assessment/evaluation) because learning is a combination of human elements, materials, facilities, equipments and procedures that affect each other in achieving learning objectives (Gerry & Kingsley in Snelbecker,1980:12). A competent teacher has an ability to create conducive learning environment and to manage his/her class so that the students can learn optimally. In other words, teacher’s competence plays an important role in achieving learning objectives.
Conclusion

The effectiveness of Geography learning management in state senior high schools in Padang City was categorized as ‘effective’ to ‘very effective’. It was affected by teachers’ ability in opening the lesson, motivating te students, operating supported media, and teachers’ strategy. Learning evaluation consisted of knowledge evaluation (tasks and test), attitude (peer’s observation and self-assessment), skills (practice, project, portfolio). Students’ activity and response in learning process were categorized as ‘effective’ to ‘very effective’. Students’ activity and response were affected by school social environment, students’ socio-economical factors and school physical environmental factors, and students’ learning mastery (individually >75 or complete, classically: 97.5% or >75 or complete for senior high schools in the downtown and <75 or 74% or incomplete for the schools in the outskirt of Padang City. The problems found were the difficulties in lesson planning for example preparation of learning devices, misusing of smartphone by the students, and students social environmental factors. The problem of evaluation was time allocation for evaluation students’ learning outcomes. Consequently, it also affected students’ disaster response in the school such as students’ readiness to participate in the classroom, teacher’s competence, and the availability of learning facilities. Some suggested prior policies for improving the learning effectiveness are the application of learning media, teaching-learning strategy development, the development of teaching-learning method and model, improvement of supported facilities and increasing teacher’s interest to participate in the forum of subject teachers (MGMP).

Reference


