

## **The Strategies to Improve the Ability of Students' Historical Explanation of SMA Negeri Surakarta Through the Digital Map Media Based on Problems**

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### **Abstract**

*One of the purposes of historical learning in Indonesia in the curriculum 2013 is not only about the cognitive knowledge but also the affective knowledge, that is able to implant the values occurred in the past events so that is able to produce young generation who understands the nation's history. To internalize the purposes, it is needed an interesting, creative and innovative teaching material to improve the ability of students' historical explanation which relates to the technological development. The rapid development of technology requires educators to respond these changes by replacing the conventional media into digital media. The conventional media does not help in improving the ability of historical explanation. Therefore, the appropriate teaching material is needed in conveying the historical material, one of the teaching materials is digital-based teaching material. This research aims to compare the effectiveness of the use of digital map with PBL (Problem Based Learning) model towards the ability of students' historical explanation when it is implemented in historical teaching. The samples of this research are 64 students in SMA Surakarta. To achieve the purposes, this research used true experimental design method with Posttest-Only Control design. The result of this research shown that the ability of students' historical explanation is better through digital map media than by using conventional map. Based on the statistic data analysis of digital map media with PBL (Problem Based Learning) model is effective to improve the ability of historical explanation.*

**Keywords :** Historical Explanation, Digital Map, Problem Based Learning

### **Introduction**

History is an important foundation for the life of a nation and State. Through history, it is expected to implant the values contained in the struggle of the heroes who had fought for the independence of the nation and we are as the successor must continue the fighting spirit and take advantage of independence as well as fill the independence with full responsibility. Joebagio in Brian (2015: ix) historical learning is the process of the past events' values in the form of origin, genealogy, concrete experience, and the exemplary of historical perpetrators. The learning is designed to form a sensible and wise characteristic; hence, the historical learning requires a design that will produce an output quality including understanding the historical events of the nation, imitating the wisdom and the wise behaviour of historical perpetrators. Understanding the historical events of the nation means being able to make an explanation of the historical event itself or often called historical explanation. Sjamsudin (2012: 148) stated that in every discussion about methodology of historical explanation (explanation) is one of the main spotlight centers. Daliman (2012: 67) stated that a historical science also has the explanation task in explaining historical events. This is because the explanation (historical explanation) is not only merely observing a phenomenon (observation) and finishing up there, but also these phenomena must be immersed, contemplated and understandable so that it can penetrate into the deep substance of the learned events and live the historical events from within. This is called as an explanation (historical explanation). Agung and Wahyuni (2013: 61) each subject has a distinctive characteristic, as well as with the historical subjects. As for one of the historical subject's characteristics is history the principle of cause and effect.

It needs to be understood by every history teacher that is necessary to remember the principle of cause and effect, one event caused by another historical event and one historical event will be the cause of the next historical event in assembling one fact with another fact, in explaining one historical event with another historical event. The current condition of historical explanation ability in SMA Negeri Surakarta is still low.

The low explanation is evidenced by the questions which were given to the students and they just answered based on the rote without answering chronologically and without linking the event to cause and effect. Basically, the ability of historical explanation is not just what and when, but rather to why and how. The explanation ability is still low because the historical learning is still less innovative and less attractive for learners. Garve and Krug (2015: 18) argue that much of historical learning is done in less favorable situations. To overcome the low ability of historical explanation requires an interesting and creative learning media that is adapted to the technology and communication in the digital era as it is today. The development of the era and globalization characterized by the rapid product and utilization of information technology, hence the conception of organizing learning has shifted to the effort of modern learning embodiment (Deni 2012: 39). Garrison and Vaughan (2008: ix) stated that the digital generation is not satisfied with conventional education. Ulfatun and Indah (104: 2017) stated the exciting and interesting historical learning can be done by using technology, especially information and communication technology in digital learning. Atno (215: 2011) said that the conveying of historical material by using computer media can awake the desire, the new interests of students, reduce boredom in receiving the subject matter and motivate students more in learning.

The conventional maps do not help much in historical learning. A digital map is a type of map displayed in digital format. The digital maps can be applied by using students' notebook. Through a digital map with an interesting display is expected to improve the ability of students' explanation (historical explanation). Sanaky (2013: 105) said that the advantages of maps and globes if it is used as a medium in the learning process is one of the maps and globe is very important to concrete the abstract messages. Based on the digital generation that requires digital media such as the digital maps, we see that in the Lesson Plan (RPP), the use of media should also be followed by the use of the model. The theory of constructivism is now highly developed as a theory adopted in the practice of learning. Thobroni (2013: 108) stated that the constructivism theory provides the activity of human beings to learn to find their own competence, knowledge or technology and other things necessary to develop themselves. Warsono (2013: 149) also stated that the Problem Based Learning (PBL) is a type of classroom management which is necessary to support constructivism approaches in teaching and learning. Relating to the improvement of historical explanation ability, it is required to choose the right technique. It is necessary to use digital map with problem-based model as a learning media to make the affective learning is more effective.

### ***The Research Method***

This research was conducted in SMA Negeri Surakarta. The sample of the study was 64 high school students who were divided into experimental class and controlled class. Quantitative analysis is done through t test, to compare the result between experimental class by using digital map with PBL (Problem Based Learning) model and controlled class which use conventional map. The sample collection used *Proportionate Stratified Random Sampling* technique. This technique is used when the population has a member or element that is not homogeneous and stratified proportionately. The method used in this research refers to the design of true experimental design. The true experimental design (trully experimental), because in this design, the researcher can control all the outside variables that affect the experiment. The design of controlled group and experimental group were chosen randomly (Sugiyono 2015: 75). The experimental group is the group given the treatment while the controlled group is the group that is not given treatment. Random selection is the right technique so that the internal variables can be high.

### ***Result and Discussion***

#### **1. Historical Explanation**

Hammer (2008) stated that the aspects of historical explanation relate to the cause and effect. Pranoto (2014: 43) stated that explanation means explanation. In a broad meaning, explanation makes the light, clear and understandable (to make plain, clear, and understandable) readers or people. The purpose of explanation is to satisfy the questioners with the answers to the questions asked. Brook (2007) said that critical evaluation plays a role in revealing the "why" question in the historical explanation.

Interrogative model is a model that can be associated with the theory of historical explanation. The theory of historical explanation collaborated with the interrogative model will answer valuable descriptive in historiography referring to the historical inquiry and explanation. Sjamsuddin (2012: 149) stated that description, explanation, or explanation is from the past. History is also inseparable from the ability to explore a past event. The explanation of why, and how need more attention, because the specific features of historical explanation will appear (Daliman 2012: 67).

## **2. Problem-Based Digital Map**

Umam (2013: 101) Digital media can present contextually, audio and visual learning in an interesting and interactive ways. It is also supported by the rapid development of computer technology. Ma'ruf, Nunuk and Sudianto (2017: 76) state the use of digital media can increase the interest and historical learning achievement. A digital map is applied map in digital form so its use can be through the student's laptop with a fascinating design and appearance. Garvey and Krug (2015: 93) are two basic ways of using maps in historical learning, they are (a) as illustrations or visuals that can help students understand the topic or discussion. If the teacher decides not to use a map or atlas it assumes that his or her students have been able to imagine the contents of the map in his mind, (b) as a historical learning resource that deals specifically with historical events such as warfare, migration, trade routes, All of this can be found symbolically on historical pamphlets or atlas. Learning is also often associated with the interaction between history and geography as well as the relationship between the environment and community activities. Using the map as a way to communicate about what happens at certain times so it opens the door for learning. In addition, the map is very helpful in motivating students (Hewitt, et al: 2). Kurniawan (2011: 60) maps make it easier to search locations and making digital map applications can replace the use of map in paper form. Based on research (Sari 2014: 77) shows that there is an increase in learning by using interactive map media that is (1) understanding of students material in learning; (2) Ability to show location; (3) Student activity in learning; (4) Improved learning results. The map is able to improve the ability of explanation and students understanding of historical subject material.

Picture 1. The contents of the Digital Map

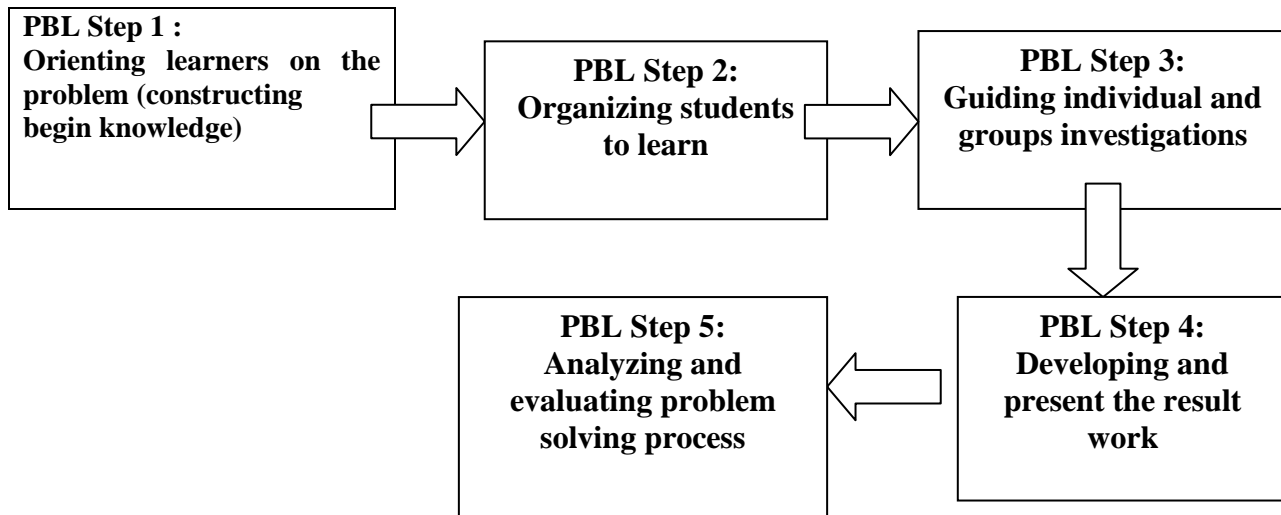


Picture 2. Evaluation in Digital Map Media



Bekti and Herman (2013: 181) PBL is a progressive, active learning and learning approach centered on unstructured issues used as a starting point in the learning process. Septiana and Kristian (2015: 155) PBL is a learning model characterized by real-life problems as something that students should learn to train and improve their thinking and problem-solving skills, and gain important conceptual knowledge. Novita and Sumiyatun (2016: 87) concludes the steps of learning through Problem- Based Learning model (PBL) consists of: 1. presentation of problems undertaken by the teacher; 2. teacher direction on learning; 3. directing learners to find alternative solutions; 4. encourage students to express the problem solution which according to their analysis is most appropriate based on several possibilities; 5. make a report on the results of problem solving that will be together to be evaluated, these steps train students to think critically and provide skills in solving contemporary problems based on the values that exist in historical events.

Picture 3: Problem-Based Learning (Hosnan 2014: 301)

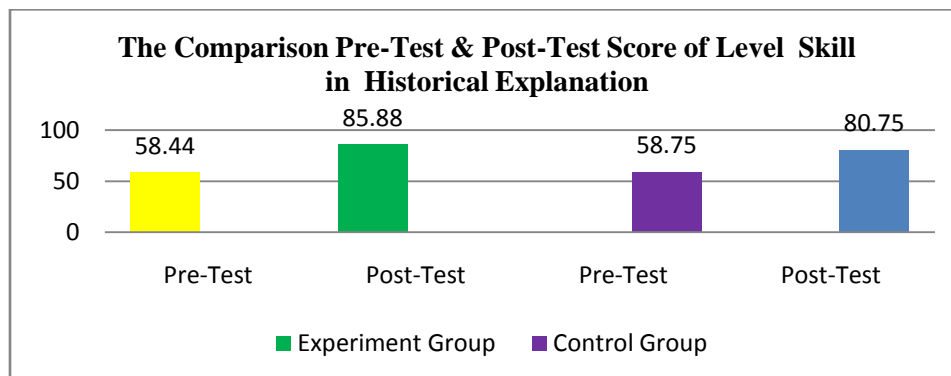


### 3.The Effectiveness Of Problem-Based Digital Map Using

The effectiveness of digital maps with PBL (Problem Based Learning) model can be seen from the increase of pretest and posttest value using essay question in the experimental group using digital map media and control group that use conventional map. Based on the results of data that has been analyzed, it is known the results of the assessment conducted through a question or essay-shaped test.

Table1. Comparison Score

Groups	Mean	N	Uji F	Sig	Df	Sig. (2-tailed)
Experiment Group	85.88	32	0,291	0,592	61.437	0.000
Control Group	80.13	32				



Picture4. Diagram of experimental class effectiveness test and control class

The results obtained in the normality test shows that both groups received significant values  $> 0.05$ , meaning that the two groups are used normal distributed. The result obtained on the homogeneity test shows that the significance value in the post-test result of both classes are 0,592, it shows significance  $> 0,05$  meaning that homogeneous distributed so  $H_0$  accepted reject  $H_1$ . Furthermore, from the problem that is undertaken by students, it will be known level of historical explanation ability through effectiveness test. The data in the effectiveness test is from post-test result between experiment and control group. The results obtained from the effectiveness test of student historical explanation ability is on the test of  $F = 0.291$  with the significance level of  $0.592 > 0.05$  then there is a variance equation. While in test result  $t_{hit}$  0,592 with significance level  $0,000 < 0,05$  hence  $H_0$  is rejected so it means between group of experiment and control are not same. This means that the post-test average of explanation ability level of experiment class and control class are different or experimental class has a higher value than the control class value in terms of historical grade level of explanation ability of both classes. The experimental group had a higher mean in comparison to control group. This means that there is a significant influence on the experimental group that uses digital map media. From the results obtained can be concluded that digital map media has effectiveness if used in historical learning. The media enhances the historical explanation ability of high school students in historical learning. The use of media plays an important role and gives a significant effect on the objectives to be achieved in the learning process. The results of this study in accordance to research conducted by Faiza (2015: 192-193) the use of media in learning clearly has provided benefits in learning, based on the results research conducted by digital audio media is considered interesting and able to motivate learners in learning because (1) convenience to use, (2) the storage efficiency, (3) the program attractiveness. Umam (2013: 104) the use of digital media with an attractive design in learning can help students in understanding the subject material so it can achieve the improving of learning result. In problem-based learning students are given the widest opportunity to solve the problem. Hadiryanto (2016: 63) the teacher is no longer the only person as an informant but it is the students who actively build their knowledge through the problem solved. Through this problem-based learning the student are identifies, explores the problem, conducts a scientific investigation and displays the findings to others. Through the problem solving ability of students are able to perform explanations (historical explanation). Based on some researches relevant to this research and based on effectiveness test which have been done show that digital map with PBL (Problem Based Learning) model can effectively be used to improve the historical explanation ability of students at SMA Negeri Surakarta.

### **Conclusion**

Historical subjects become important subject in Curriculum 2013 because many aspects of attitude can be instilled to learners. Therefore, a clear understanding of historical events should be improved so students are able to make explanations (eksplanasi) of history against past events. For that purpose, the research aims to improve the ability of historical explanation through digital map with PBL model (Problem Based Learning). Based on the result of research, it is found that there is an average difference in the ability of historical explanation in the experimental group using digital map with PBL (Problem Based Learning) model with control group using conventional map. After given treatment, the class uses digital map with PBL (Problem Based Learning) model of historical explanation ability level is better than the class that use conventional map with PBL (Problem Based Learning) model. Therefore, it can be concluded that digital map with PBL model (Problem Based Learning) can effectively be used to improve the explanation ability of high school students in Surakarta.

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