# Implementation of Problem Based Learning Model Assisted Media Stop Motion in Learning IPS Elementary School

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**Abstract.** The issue of social studies learning is an urgent problem and needs to be immediately sought for alternative problem solving to improve and improve the quality of social studies learning at SDN 2 Pangenjurutnegah. To overcome these learning problems, it is necessary to apply innovative learning models that can increase student motivation including teacher skills, student activities, and student learning outcomes that encourage active student involvement in learning. In addition, the learning process is expected to be systematic, comprehensive and integrated in the learning process towards maturity and success in life in society. This design in each cycle consists of planning (plan), implementation (act), observation (observ), and reflection (reflect). Data collection techniques used were observation, interviews and documentation studies. Based on the four cycles carried out, each indicator experienced a consistent increase. When the media stopmotion is displayed students show concern for the material, then the curiosity and the emergence of pleasure can be seen when students work on the task. This shows that the problem based learning model assisted by stopmotion can improve student learning skills.

*Keyword: PBL, Stop Motion, Motivation*

## 1. Introduction

Historical education is a process of upholding the values of nationalism, knowledge, and skills in terms of history which are arranged with the intention to influence and support the learning process about the past. History will continue to exist as long as humans are still alive, so that humans will never be separated from history. Learning history is often regarded as a subject that focuses on knowledge of the past, this then assumes that studying history has no effect and is not related to present or future life. It is not uncommon for students who think that historical subjects are ancient, so they do not consider historical subjects important to learn. It is this erroneous assumption that then lives in the mind of every student, so it is very rare to find students who feel interested in learning history. Independence has a role important for elementary school age children. In the early classes, students still learn to adapt to new class environment, whereas in higher grade, students are able put himself into a student who independent. This can be seen when the role the teacher in learning is no longer being the main and only learning resource, rather students must actively find out through many other learning resources, students do things on the basis of his awareness alone, and not easily influenced by everything decision taken. Students who are used to it independent will

easily adjust itself. Nandang Budiman (2006: 83) said that if the child gets a facilitator for develop his independence then he tend to be an autonomous child who is able to manage himself. One learning model that is can be used to improve independence of student learning in subjects Science is a learning based model problem or problem based learning (PBL). Tan (2003, Rusman, 2011: 230) argues that PBL is an innovation in education because in PBL ability think students are really optimized through a group or team work process systematic, so students can empower, hone, test, and develop thinking abilities in a way continuous.

Through the problem learning model based learning (PBL) students will be trained for not completely dependent on activities learning on the teacher, so that independence student learning will appear. Students will be encouraged to be active in learning, challenging students to think, motivate students to keep finding out, and giving rise to processes enjoyable learning. Eventually, students are able to apply that knowledge they get in everyday life. The stopmotion technique began in 1906 and was invented by Stuart Blakton. Stuart Blakton drew the facial expressions of a cartoon character on a blackboard, was shot with a still camera, then deleted to draw the next facial expression. This stopmotion animation technique is often used in visual effects for films in the era of 1950-1960s even today.

Stopmotion is an animation technique for making physically manipulated objects so that they appear to move on their own. Each movement of the object is photographed (individual frames), thus creating the illusion of movement when a series of frames are played sequentially in a continuous manner. This technique consists of two words namely stop which means stop and motion which means movement. Stop motion was created using this technique using the principle of frame to frame, such as two-dimensional animation. The process is the same as animation in general, which is set frame by picture frame. Then the stopmotion media is a live picture (motion picture) which is a series of images projected onto a screen, this series of grooved stories will be easily understood as a medium for delivering instructional materials. So hopefully the media can increase student motivation.

## 2. Methods

This study uses an approach quantitative with experimental research methods quasi experimental form design because the control group cannot function completely to control variables outside that affects implementation experiment. The type of research design used in this study is nonequivalent control group design. This design consists of two group, namely the experimental group and control group. Experimental group and the control group was given a pre test first first the experimental group is given certain treatment, for good then the control group and the experimental group given a post test to see the effect of treatment in the experimental group, so can be seen improvements / changes that occur in the experimental group and can compare it with the control group.

| Class | Pre Test | independent variable | Post Test |
|---|---|---|---|
| Experimental | $O_1$ | X | $O_2$ |
| Control | $O_3$ | _ | $O_4$ |

Information:

$O_1$ = Pre test results of class learning independence experiment.

$O_2$ = Post test results of class learning independenceexperiment.

$O_3$ = Pre test results of the control class learning outcomes.

$O_4$ = post test results of the control class learning outcomes.

X = Treatment. Experiment class given treatment in the form of learning with a model problem based learning (PBL).

__ = fair condition. Control class given treatment with reasonable learning conditions or learning that is usually done by the teacher is lecture and question and answer or assignment.

**Research subject Population**

In this study, the population is used is class IV which is located in SD Pangenjurutengah 2, Purworejo District and SDN 2 Baledono as many as 40 students

**Sample**

Samples are part of the sum and characteristics possessed by the population. Sample used must be truly representative. Technique random sampling is used to determine the experimental class and the control class in a way lottery, so that a group is obtained The experiment was SDN Pangenjurutengah 2 class IV which amounted to 19 people and the control group is SD N 2 Baledono class IV which amounts to 21 students.

**Data collection technique**

Data collection techniques in research This uses observation and questionnaires. Observations in this study were used for teacher and student. Teacher observation is intended to find out the feasibility of learning with the problem based learning model assisted stop motion as well on lecture learning and question and answer or assignment, while student observation used to determine student behavior related to learning independence during the learning process. Questionnaire used to find out the level of learning motivation student

**Research Instruments**

The instrument used is a sheet observation to see teacher activities as well student activities during the learning process and Learning independence scale sheet is used to find out the level of learning independence Student social studies. Data analysis technique Data analysis technique used in this research is descriptive statistics and inferential statistics. Descriptive statistics used to analyze data in a way describe or describe data has been collected through tables, graphs, diagrams circle, pictogram, calculation mode, median, mean (measurement of central tendency), decile calculation, percentile, calculation data dissemination through average calculation and standard deviations, percentage calculations. Inferential statistics are used to test hypothesis. The hypothesis test used was t-test which is preceded by an analysis prerequisite test namely the test for normality and homogeneity test.

## 3. Discussion

Based on data obtained in research, value comparison can be known average pre test and post test in the group control and experiment. Comparison of average values pre test can be seen in the following table. Comparison of group pre-test scores experiment and control group

| NO | Group | Average Score |
|----|-------|---------------|
| 1. | Experiment Group | 75,4 |
| 2. | Control Group | 74,5 |

Based on the table above, you can seen that the difference in score in the group the experimental and control groups were 0.9. This indicates that initial ability in the experimental group and control is relatively the same. Condition before the learning process is done shown by pre test scores on both the group above, it turns out the control group get a higher score than the group experiment. The score if presented in The histogram is as follows.
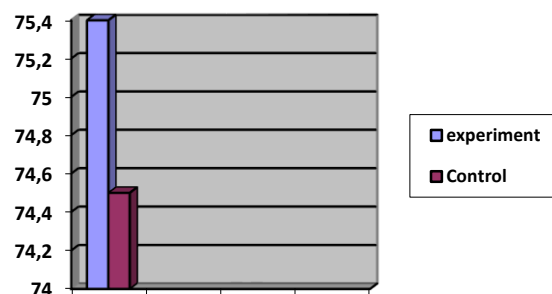


While comparing the results of the post test can be seen in the following table.

| NO | Group | Average Score |
|----|-------|---------------|
| 1. | Experiment Group | 83,8 |
| 2. | Control Group | 75,3 |

Based on the table above, you can seen that the difference in post-test scores on experimental group and control group is a. This indicates that learning independence scores between groups experiments with the control group have difference. An average score of 8.5 learning independence in the higher experimental group compared to the average learning independence score in the control group. Comparison of averages learning independence post test scores can be presented on the following histogram.
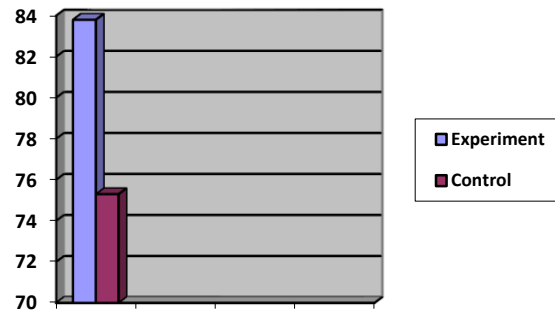
## Hypothesis testing

Using t-test presented in the following table.

| Observed thing | Experiment | Control |
|---|---|---|
| *Mean* | 83,8 | 75,3 |
| N | 19 | 21 |
| Significance *two-tailed* | 0,031 | |
| analysis | 0.031 <0.05 | |
| Information | there is a significant difference | |

Based on the table then it is known that the difference in mean groups experiment and control are 8.5. Level of sig count 0.031. The significance level is <0.05 so it can be stated that Ha yang reads there is a significant positive effect the application of problem based learning to Social studies learning independence is accepted. Based on the results of the t-test showed there Significant differences in learning independence IPS between the experimental group with apply a problem based learning model and control group with regular learning namely lectures and questions and answers or assignments. This is evidenced from the results of the t-test on a significance level of 5% was obtained significance count is 0.031 <0.05.

## Motivation

Motivation in learning that uses learning tools with PBL models aided by experimental class concept maps shows increased motivation. This can be seen based on the comparative analysis data of the initial motivation of experimental and control class students with the results of the questionnaire obtained from the experimental class students as many as 3 children are less motivated and 16 children are motivated while the control class is 12 children less motivated and 9 children are motivated. It can be concluded that, in general learning using PBL learning tools assisted with concept maps can increase student motivation and is better than teaching materials used in schools.

## 4. Conclusion

Based on the results of research and discussion, it can be concluded that there is a significant positive effect of application problem based learning assisted stop motion on self-motivation study social studies. This is evidenced from the results of the t-test at a significance level of 5% obtained the significance of the count is lower than 0.05 i.e. 0.024 <0.05, so it can be stated that the difference is significant. Based on the statement, it can be it was concluded that learning with a model problem based learning is more effective in acquisition of learning independence rather than ordinary learning done by the teacher namely lectures and frequently asked questions or assignments.

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