The Effect of Picture Media and Learning Style on Social Study Learning Outcomes

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Abstract: The purpose of this study is to determine the effect of picture media and learning styles on social study learning outcomes. The study was conducted in SDN 1 Sindangkasih with a sample of VA class students as many as 30 people as an experimental class and VB class as many as 30 people as a control class conducted in the academic year 2017/2018. This Research is using design treatment by level 2 x 2. Data analysis technique used two way analysis of variance (ANOVA) technique. The result of the research shows that (1) there are differences in social study learning outcomes between students learning to use serial picture media with students learning to use flipchart media; (2) there are differences in social study learning outcomes between students who have a tendency of visual learning style with students who have a tendency of auditorial learning style; (3) there is interaction between instructional media and student learning style to social study learning result; (4) student learning outcomes that have a tendency of visual learning styles that learn to use serial picture media higher than those learning to use flipchart media; (5) student learning outcomes that have a tendency of auditorial learning style that learn to use flipchart media higher than those who learn to use serial picture media.

Keywords: Serial Picture Media; Flipchart Media; Learning Styles; Social Study Learning Outcomes

INTRODUCTION

Basic education is the first step for students to initiate the formal education process. The process of learning in basic education is very important, because the knowledge gained in basic education is a provision that can be used as the initial foundation to follow a higher level of education. One of the basic forms of education is elementary school.

Basically, the learning process conducted in elementary school is oriented to provide basic skills include reading ability, ability, writing, and numeracy skills. In addition, students are also taught to review a set of events, facts, concepts and generalizations related to social issues. It aims to make students able to become democratic Indonesian citizens, responsible, and become citizens who love peace (BSNP, 2006: 575). One means to study it is through the subjects of Social Sciences Social Study.

Defined by the National Council for Social Studies (NCSS), social studies are integrated study of the social sciences and humanities to promote civic competence. ...social studies provide coordinated, systematic study drawing upon such disciplines as anthropology, economics, geography, law, history, philosophy, political humanities, mathematics and natural sciences (Seefeldt, et.al., 2014: 2).

That is, social studies are an integrated study of social science and humanities to promote citizenship competence. Social studies provide a coordinated and systematic study of disciplines such as anthropology, economics, geography, law, history, philosophy, political humanities, mathematics and Natural Sciences. "See the office of the office of citizen" and to integrate knowledge, skill, and attitude within and across disciplines (Seefeldt, et.al., 2014: 2). Skeel (in Sriyanto, 2016: 112) explains that social study aims to help develop self-concept well, how to be a part of global and multicultural society, and build knowledge about the past and the present as the basis for decision making. In addition, social study is designed to build and reflect students' skills in an ever-changing and evolving community life (Team Dosen Pengajar IPS, 2013: 6). Bound on the social study goals that have been described, it can be seen how important to study the social study. Through social study subjects, students are taught about the history of how the state of Indonesia became
independent. It is intended that the students know the struggle of independence leaders in fighting for Indonesia to become an independent country. By knowing the history, students are expected to have a high patriotism, love of the homeland, and responsible as citizens of Indonesia.

But in fact, social study subjects less desirable by students. Most social study materials require memorization, so students are less interested. This is reinforced by the results of research conducted by Team Doesen social study in elementary schools in 2013 which showed some erroneous assumptions about social study, among others:

1. Social study lesson is a mere teaching lesson delivered by the teacher in a lecture and tell the story in front of the class. Thus the students will be bored and tired of learning social study.
2. In social studies can not use concrete tools that can be manipulated (tampered with) students, so they are passive in learning.
3. With social study lessons can not be used as benchmarks of students' intelligence, in contrast to the exact lessons such as science and mathematics.
4. Social study learning does not guarantee the future of the students unless the lessons are exact (2013: 7).

Referring to the above description, in general, social study learning in primary school is delivered by conventional (just conventional) course, and the lack of use of props or media that can attract students' attention. Submission by way of lecturing is not wrong, but teachers tend to rarely use media and props, so that will lead to the existence of verbalism. That is, explaining too much with words without concrete examples feared to misunderstand what is being said. Submission by way of lecture will also make passive students, because the more active role in the learning process is the teacher (teacher centered), so the interactivity between teachers with students only walk in one direction. Therefore, learning media have a very important role in conveying social study materials.

The use of media in learning is very important to note, because in any form of learning is needed the role of media to further improve the level of effectiveness of achievement goals/ competencies. This is supported by Gagne (in Datuarruan, 2016: 178) which states that the media "... can stimulate students to learn". In line with Gagne, Briggs (in Indriana, 2011: 14) also argued that the media is a tool to provide incentives for learners to occur in the learning process.

Thus it can be said that with the media, students will be helped to learn better, as well as aroused to understand the subjects being taught in the form of communication delivery of messages more effective and efficient. The right media and in accordance with the purpose of learning will be able to improve the learning experience so that students can enhance learning outcomes. This is inline with the opinion put forward by Edgar Dale with the theory of "Cone Experience ", which became the basis of media use in learning. Bruner (in Daryanto, 2013: 13) suggests that in the process of learning should use the sequence of learning by picture or film (iconic representation of experiment) and then to learn by symbol, that is using with words (symbolic representation).

The results of research conducted by Datuarruan (2016) with the title "Peranan Media Gambar IPS terhadap Hasil Belajar Siswa Kelas III SD Inpres Pedanda Kecamatan Pedongga Kabupaten Mamuju Utara " shows that the use of image media done in two cycles repeatedly can improve the learning result of social study.

Based on the results of these studies, it is known that the results of learning social study students have increased with the use of image media. In addition, the results of research conducted by Tsai et. al (2018) entitled "Learning Under Time Pressure: Learners Who Think Positively Achieve Superior Learning Outcomes from Creative Teaching Methods Using Picture Books" shows that the use of images positively affects the effectiveness of learning, both for teachers and for students. Furthermore, the research results Tomita (2018) with the title "Does the Visual Appeal of Instructional Media Affect Learners' Motivation Toward Learning?" Showed that the visual appeal of Instructional media not only the design but influences learners' self reported motivation to engage with the handout.

Based on the results of the above research, it is known that the image media can affect the effectiveness of learning. Therefore, the use of image media in learning is expected to affect student learning outcomes so that better.
The media used in this research is a series of image media for experimental class and flipchart media for control class.

According to Putra (2015: 233), the common drawing media series is called a flow chart. Arsyad (in Putra, 2015: 233) suggests that the series drawing is a series of events or stories presented in sequence. The drawing series will be difficult to understand when it stands independently and has not been sorted. Serial drawings will have meaning after they are sorted by specific patterns or in the order of a story (Putra, 2015: 6). Based on the definition of drawings that have been described series, can be explained that the drawing series is a series of images of activities or stories presented separately from one to another but has a unity sequence of stories and will have meaning if it has been arranged in sequence at once. This refers to the Gestalt theory developed by Max Wertheimer, Kurt Koffka, and Wolfgang Kohler (in Hernawan et al., 2010: 47) with the experimental results that an object or event will give meaning if the individual is able to see the relationship between one element and the element the other in one whole. In addition, according to Darmadi (2017: 72) in general elementary school students still see everything as a whole (think holistic) and understand the relationship between concepts in a simple way.

According to Hernawan, et al. (2007: 131), flipchart media is an album or calendar-sized paper sheet measuring 50 × 75 cm or smaller size 21 × 28 cm as a flipbook, arranged in a sequence tied to the top. Flipchart media in this study is a collection of images of independence proclamation events are arranged to resemble an album or calendar. Unlike the series image media, the images on the flipchart media do not show the order of a story.

The results of research conducted by Nuswantoro (2013) with the title "Penggunaan Media Gambar Seri untuk Meningkatkan Kemampuan Menulis Karangan dengan Tema Lingkungan pada Siswa Kelas III SDN Krembangan Utara III/606 Surabaya " shows that the use of series drawing media can improve student learning outcomes on writing materials simple essay. In addition, the results of a study by Koc-Januchta et al (2017) entitled "Visualizers versus Verbalizers: Effects of Cognitive Styles on Learning with Texts and Pictures-an Eye-Tracking Study" show that visualizers 'and verbalizers' way of learning is active but mostly within the fields providing the source of information in line with their cognitive style (pictures or text). Verbalizers tended to enter non-informative, irrelevant areas of pictures sooner than visualizers. The comparison of learning outcomes shows that the group of verbalizers on a comprehension test.

Referring to the results of these studies, another thing that must be considered is the learning style of students.

Learning style is the process of how one absorbs and organizes and processes the information obtained. Pashler et al. (in Tulbure, 2012: 65) describes the learning style refers to the idea that there are many different types of instruction. Kamboj and Kumar (2015: 290) suggested that "understanding learning styles and the role of learning styles in the teaching / learning process is a key component in effective teaching. Teaching can not be successful without knowledge of learning styles". It can be said that understanding the learning style and the role of learning styles in the teaching and learning process is a key component of effective learning. Learning can not be successful without knowledge of learning styles.

Each student has a different learning style. May (2005: 3) states that "pupils may adopt different styles as they first explore and understand, and then rehearse and apply, each new concept". This means that students can use different learning styles in their first experience and understanding, and then train and apply them in other new concepts.

DePorter and Hernacki (2013: 112) reveal that there are three learning styles, namely Visual, Auditoriaol, and Kinesthetic (VAK). Visual learning style is more emphasis on the sense of sight in capturing information (Darmadi, 2009: 2). While the style of auditorial learning prioritizes the sense of hearing in menagkap information (Darmadi, 2009: 2). As with the kinesthetic learning style, this learning style prefers the sense of touch, or involves the limbs in capturing information (DePorter and Hernacki, 2013: 112). Students tend to have all three learning styles, but there is one learning style that is more dominant than others. In this study focuses on visual and auditorial learning styles.
Results of research conducted by Siwi and Yuhendri (2016) with the title "Analysis Characteristics of Learning Styles VAK (Visual, Auditory, Kinesthetic) Student of Banks and Financial Institutions Course" indicates that the characteristics suitable for students learning the visual is to motivate students to describe the information, by creating a diagram, symbol and color images in visual student records.

While the results of research conducted Chen (2014) with the title "Differences Between Visual Style and Verbal Style Learners in Learning English" showed that:

LCR (Learning Content Representation) with pictorial annotation (Type A) help participants with lower verbal abilities and higher visual ability (Q2) to have better performance than other three quadrants, because type A participants feel it is easy to learn content presented in a visual form than in a verbal form. Providing LCR with both written and pictorial annotation (Type C) helps learners best with higher verbal abilities and higher visual abilities (Q1) in the recognition test. Providing redundancy learning content lead a higher cognitive load and result of Cognitive Load theory. It implies that providing simple learning materials (only written annotation, Type B) is useful to participants with lower verbal abilities and lower visual abilities (Q3). The research results show that instructors should provide suitable learning materials to their learners in accordance with their STM abilities.

Other research conducted by Khoeron et. al (2014) entitled "The Influence of Learning Styles on Student Learning Achievement in Productive Subjects" indicates that learning styles have a relationship to learning achievement and have a significant effect on learning achievement. Based on the problems and various research findings that have been presented, this research is intended to know the results of social study learning on the material proclamation of independence that can be influenced by the use of learning media and the tendency of learning styles held by students.

The learning outcomes referred to in this study are the results of social study learning on the material proclamation of independence. Indicators of learning outcomes social study students must achieve in this study refers to the cognitive dimensions according to Anderson and Krathwohl (in Krathwohl, 2002: 214) which is the development of Bloom's Taxonomy include: knowledge of the terminology (states), knowledge of specific details and elements (understand), knowledge of classifications and categories (analyze), and knowledge of principles and generalizations (describe).

**RESEARCH METHODS**

Method used in this study is the experimental method with the design Treatment by level 2 X 2. Experimental research methods can be interpreted as research methods used to find the effect of certain treatment against others in controlled conditions. This study contains three research variables, namely independent variables, dependent variables, and moderator variables. The independent variable in this research is the serial picture media. The dependent variable is the social study learning outcomes. The moderator variable is the learning style.

The experiments were conducted on two classes (experimental class and control class) with two groups of students in each class (groups of students who had a tendency of visual learning style and group of students who had a tendency of auditorial learning style). In the experimental class were treated using serial picture media and in the control class were treated by using flipchart media. The design description that will be used in this research is as follows.

**Table 1**

<table>
<thead>
<tr>
<th>Instructional Media</th>
<th>Serial Picture Media (A1)</th>
<th>Flipchart Media (A2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual (B1)</td>
<td>A1B1</td>
<td>A2B1</td>
</tr>
<tr>
<td>Auditorial (B2)</td>
<td>A1B2</td>
<td>A2B2</td>
</tr>
</tbody>
</table>

Sampling in this research using random sampling technique, that is a way or sampling technique from population by way of random or simple random. (Soewadji, 2012: 137).

The sample of this research is the students of Grade V of SD Negeri 1 Sindangkasih with the sample unit selected VA class as many as 30 students as the experimental class.
given treatment using serial picture media, while the VB class as many as 30 students are selected as control class which learn to use flipchart media.

Furthermore, all students were asked to fill out the learning style questionnaire to find out the learning styles of each student. Then 33% of students who have visual learning style and 33% of students who have auditorial learning style. The calculation of 33% is taken from the total number of students in each class.

The data analysis in this research uses two way analysis of variance (ANOVA) technique, then Tuckey test if the test is done further. But beforehand, in order to test the hypothesis can be done, it is necessary to test the requirements analysis of the normality test and homogeneity test. Data obtained from research activities are processed to have meaning useful to answer the problems in research and to test the hypothesis.

RESULTS AND DISCUSSION

### Table 2

<table>
<thead>
<tr>
<th>Source Variance</th>
<th>Db</th>
<th>JK</th>
<th>RJK</th>
<th>F&lt;sub&gt;count&lt;/sub&gt;</th>
<th>F&lt;sub&gt;table&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shuttle Column</td>
<td>1</td>
<td>60,02</td>
<td>60,02</td>
<td>16,31</td>
<td>4,11</td>
</tr>
<tr>
<td>Interlinear</td>
<td>1</td>
<td>46,22</td>
<td>46,22</td>
<td>12,56</td>
<td>4,11</td>
</tr>
<tr>
<td>Interactions</td>
<td>1</td>
<td>148,23</td>
<td>148,23</td>
<td>40,27</td>
<td>4,11</td>
</tr>
<tr>
<td>In</td>
<td>36</td>
<td>132,50</td>
<td>3,68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Reduced</td>
<td>39</td>
<td>386,97</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. The differences of social study learning outcomes between groups of students who learn by using serial picture media (A<sub>1</sub>) is higher than group of students who learn by using flipchart media (A<sub>2</sub>).

The result of variance analysis (anova) in table 1 obtained value of F<sub>count</sub> = 16,31 bigger than F<sub>table</sub> (0.05) = 4,11. Based on the results of the calculation then H<sub>0</sub> rejected, meaning there are differences of social study learning outcomes between students who learn to use the serial picture media (A<sub>1</sub>) is higher than the social study learning outcomes the group of students who learn to use flipchart media (A<sub>2</sub>).

2. The differences of social study learning outcomes between groups of students who have a tendency of visual learning style (B<sub>1</sub>) is higher than group of students who have tendency of auditorial learning style (B<sub>2</sub>).

The result of variance analysis (anova) in table 1 obtained F<sub>count</sub> = 12,56 bigger than F<sub>table</sub> (0.05) = 4,11. Based on the results of the calculation then H<sub>0</sub> rejected, meaning there are differences of social study learning outcomes between students who have a tendency visual learning style (B<sub>1</sub>) with students who have tendency auditorial learning style (B<sub>2</sub>). The mean score of the student group has a tendency of visual learning style (B<sub>1</sub>) is X<sub>B1</sub> = 22,85 and the mean score of the group of students who have a tendency auditorial learning style (B<sub>2</sub>) is X<sub>B2</sub> = 20,7. Thus, it can be concluded that the mean score of social study learning outcomes between groups of students who have a tendency of visual learning style (B<sub>1</sub>) is higher than group of students who have tendency of auditorial learning style (B<sub>2</sub>).

3. Interaction between instructional media and learning styles on social study learning outcomes

The results analysis of variance (anova) in table 1 obtained value of F<sub>count</sub> = 40,27 more than F<sub>table</sub> (0.05) = 4,11. Based on the results of these calculations then H<sub>0</sub> rejected, meaning there is a significant interaction between instructional media and learning styles on the social study learning outcomes. For more details can be seen in the picture below.
The interaction between instructional media and learning style on social study learning outcomes is required further testing. The advanced test used is the Tukey test, because the number of subjects in each group is the same.

4. The differences of social study learning outcomes between student groups who learn to use serial picture media with students who learn to use flipchart media in groups of students who have a tendency of visual learning style.

Testing the differences of social study learning outcomes of students who learn using serial picture media with students who learn to use flipchart media in groups of students who have a tendency of visual learning style to be conducted by using the Tukey test. Tukey test calculation results show that $Q_{\text{count}} = 10,384$ and $Q_{\text{table}} = 2,228$. Thus $H_0$ is rejected, meaning that there are significant differences of social study learning outcomes between students who learn to use serial picture media with students who learn to use flipchart media in groups of students who have a tendency of visual learning style.

The average value of students who learn to use serial picture media with a tendency of visual learning style is $X_{A1B1} = 26$ and the average value of students who learn to use flipchart media with a tendency of visual learning style is $X_{A2B1} = 19.7$. It show $X_{A1B1} > X_{A2B1}$.

The results of the calculations show that the social study learning outcomes in the group of students who learn to use the serial picture media is higher than group who learn to use flipchart media for groups of students who have a tendency of visual learning style.

5. The differences of social study learning outcomes between groups of students who learn to use serial picture media with students who learn to use flipchart media in groups of students who have a tendency of auditorial learning style.

Testing the differences of social study learning outcomes of students who learn using serial picture media with students who learn to use flipchart media in groups of students who have a tendency of auditorial learning style to be conducted by using the Tukey test. Tukey test calculation results show that $Q_{\text{count}} = 2,308$ and $Q_{\text{table}} = 2,228$. Thus $H_0$ is rejected, meaning that there are significant differences of social study learning outcomes between students who learn to use serial picture media with students who learn to use flipchart media in groups of students who have a tendency of auditorial learning style.

The average value of students who learn to use the serial picture media with a tendency of auditorial learning style is $X_{A1B2} = 20$ and the average value of students who learn to use flipchart media with a tendency of auditorial learning style is $X_{A2B2} = 21.4$. It show $X_{A2B2} > X_{A1B2}$.

The results show that social study learning outcomes in groups of students learning to use flipchart media are higher than group who learn to use serial picture media for groups of students who have a tendency of auditorial learning style.

**CONCLUSION**

Based on the results of research and discussion of the effect of instructional media and learning styles on social study learning outcomes in the material proclamation of independence in the class VA and VB in SDN 1 Sindangkasih District Ciamis obtained the conclusion that:

1. Social study learning outcomes in groups of students who learn using serial picture media more higher than groups of students who learn using flipchart media;
2. Social study learning outcomes in the group of students who have a tendency of visual learning style is higher than groups of students who have a tendency of auditorial learning style;
3. There is an interaction between instructional media and learning styles on social study learning outcomes;
4. Social study learning outcomes in the group of students who have a tendency of visual learning styles that learn using serial picture media is higher than group of students who have the tendency of visual learning styles that learn to use flipchart media;

5. Social study learning outcomes in the group of students who have a tendency of auditorial learning styles that learn using flipchart media is higher than group of students who have the tendency of auditorial learning styles that learn to use serial picture media.

REFERENCES


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