THE INFLUENCE OF COOPERATIVE LEARNING ACCOMPANIED BY IMAGE MEDIA ON THE INITIAL WRITING ABILITY OF GRADE 1 ELEMENTARY SCHOOL STUDENTS IN TERMS OF VAK LEARNING STYLE

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Submitted: 07 January 2023          Revised: January 2023           Accepted: January 2023

Abstract: Media learning can be disadvantaged into four types, namely: (1) Visual media, which only relies on students' senses of sight; (2) Audio media, which only involves students' hearing, (3) Audiovisual media, which involves hearing and sight simultaneously in one process or activity; and (4) Multimedia, which involves several types of media and equipment in an integrated manner in a learning process or activity. This study aims to analyze the effect of the application of cooperative learning using visual media on the beginning writing ability of first graders of elementary school in terms of VAK (Visual, Auditory, Kinesthetic) learning styles through a quantitative approach with a quasi-experimental nonequivalent control group design. Data analysis was carried out using the t-test (t-independent samples) on the n-gain control class and the experimental class. The results showed that there was an effect of the application of cooperative learning with picture media on the initial writing ability for 1st-grade elementary school students in terms of VAK (Visual, Auditory, Kinesthetic) learning styles with the highest effect seen in students with kinesthetic learning styles.

Keywords: Cooperative Learning; Picture Media; Beginning Writing; VAK Learning Style.
INTRODUCTION

Language skills are something that must be developed seriously as a form of adaptation to global developments that require all people to have good language skills including all listening, speaking, reading, and writing skills. Easier access to information networks is certainly an advantage for today's generation to learn anywhere and anytime. Nevertheless, each individual has a different level of skill depending on the influence of various factors, both supporting and inhibiting, in the surrounding environment (Rivers, 2018).

Differences in language skills between one individual and another, as well as between one skill and another, especially in children aged 0-8 years should be well observed by teachers, parents, or other companions. It is necessary to see whether a child has reached the average milestone for his age, slower, or more advanced, so that in the future teachers, parents, or other companions can map out the problems that arise and solutions to deal with them because at that time the child's brain development occupies the most important position and experiences an unusually rapid leap called the golden age period (Hasnida, 2014).

The phenomenon that the author observed among grade 1 children of SD Laboratorium UPI Cibiru shows that almost all children have been quite good at oral language skills. Meanwhile, in the language skills of the writing variety, most children are able to read well but cannot write yet. This can happen because of differences in children's learning styles, learning models and strategies as well as learning media used where modern learning often uses more devices (gadgets) that help children improve reading skills but not writing skills. In addition, writing activity is a form of language skills that has the highest level of difficulty because the ability to write is not acquired naturally and is not enough only with theory but also requires a lot of practice and continuous learning (Saleh, 2013).

The development of writing skills in grade 1 elementary school children begins with learning to write at the beginning. Beginning writing, which is also commonly referred to as handwriting, is how to realize sound symbols in the form of writing. This level of writing is related to the strategy of realizing sound symbols in the language into concretely intelligible letters (Rahmadani, 2019). Initial writing learning activities in low-grade children usually begin with the introduction of sound symbols, in fact, it is not uncommon for some children to be given a strengthening of the initial pre-writing preparation which includes the development of fine and gross motor skills.

The implementation of early writing learning, especially at the initial elementary school level, is not easy and requires a lot of consideration because students at that level do not have sufficient experience. It is not uncommon for grade 1 elementary school children to find it difficult and lazy to learn to write and even refuse to write because they think writing lessons are too much, heavy and tiring. Moving on from this phenomenon, to improve the ability to write at the beginning, a teacher must first be able to understand the characteristics of
each student so that he can determine appropriate learning models and strategies and can increase student interest and motivation to follow the entire learning process.

The learning models and strategies applied by a teacher in the teaching of early writing must be able to include the activeness of all students and create a collaboration between students in the process. One of the efforts that can be done is the application of cooperative learning. Cooperative learning is a learning in which students learn together, contribute their thoughts to each other and are responsible for the achievement of individual and group learning outcomes (Slavin, 2015).

The existence of group activities in cooperative learning is expected to make working together synergistically, integrally, and combinatorially and helping each other, especially in grade 1 elementary school students who are sometimes still reluctant to ask questions or ask their teachers for help. Cooperative education emphasizes common interests so that students who have higher abilities will help students who have ordinary or lower abilities. Thus there will be no inferiority or overbearing feeling because each learner realizes that they are both in the process of seeking knowledge for a bright future with their own advantages and disadvantages.

Cooperative learning allows open interaction between students and can be a trigger effect for them to be motivated in the further learning process. Group activities in cooperative learning are also expected to shape the character of responsibility and care for peers and avoid selfish, individualist, and unhealthy competition as early as possible so that each student does not attach importance to personal interests in order to achieve group goals. Nevertheless, the application of cooperative learning is not without its drawbacks. It is not uncommon for one or several group members to do the entire task or not do it at all. Sometimes, too, a more capable student chooses to ignore an underprivileged student instead of helping him. In addition, there is often a division of tasks between members of the group so that each student is only focused on one learning point instead of working together to complete the entire task.

The selection of learning methods in applying cooperative learning to grade 1 elementary school students must be carefully planned and adjusted to students' simple thinking skills and limited activity skills. In addition, the selection of learning methods must also be adjusted to the student's learning style. Professor Ken, et al as quoted by Rose and Nicholl divide a person's modalities into three learning styles, namely: (1) Visual, that is, learning through seeing things; (2) Auditory, that is, learning through listening to something; and (3) Kinesthetic, that is, learning through physical activity and direct involvement.

These three learning modalities indicate individual preferences in the learning process. Although the three modalities are almost all owned by everyone, but almost all of them always tend to one of the three. Most of the students, especially when they are still in low grades, are visual learners, as can be seen from how they are more interested in learning by using visual media such as word
cards and images. However, the more senses that are stimulated in learning, the greater the chances of success in learning. Therefore, learning methods that can collaborate on the entire learning style must continue to be developed.

The development of learning methods that collaborate entirely because of visual, auditory and kinesthetic learning (VAK) must be supported by the use of learning media that can stimulate students’ interest and motivation for learning. Learning media is one of the communication components that become an intermediary to make it easier for educators to deliver material to students so that the learning process can achieve its goals. Learning media can be in the form of everything that can convey or distribute messages from a learning resource in a planned manner so that there is a supportive learning environment where the recipient can carry out the learning process efficiently and effectively.

Learning media can be grouped into four types, namely: (1) Visual media, which only relies on the learner’s sense of sight; (2) Audio media, which only involves the learner’s sense of hearing, (3) Audiovisual media, which involves hearing and sight at the same time in a single process or activity; and (4) Multimedia, which involves several types of media and equipment in an integrated manner in a learning process or activity (Asyhar, 2012).

Given the characteristics of the learning style of most grade 1 elementary school students who are visual learners, visual learning media in the form of images is considered suitable to stimulate students’ interest and motivation in learning so it is expected to have implications for student skills including initial writing skills. According to Sadiman, et al, image (2018) is also referred to as graphic media, which is a visual-based media consisting of symbols, images, dots, and/or lines to describe and summarize ideas and events, and is an intermediary of the most commonly used language that can be understood and enjoyed anywhere.

This study aims to analyze the effect of the application of cooperative learning using visual media on the beginning writing ability of first graders of elementary school in terms of VAK (Visual, Auditory, Kinesthetic). The use of image media in early writing learning by applying cooperative learning must be able to collaborate on the entirety of visual, auditory, and kinesthetic learning (VAK) so that visual learners children can get learning experiences with other learning styles, as well as non-visual learners children can also follow learning actively and enjoyably and have implications for improving their skills.

**MATERIALS AND METHODS**

This research was conducted through a quantitative approach with experimental methods. The experimental design used in this study was a quasi-experimental nonequivalent control group design by comparing experimental classes using cooperative learning models along with image media and control classes using conventional learning models and then the two classes were evaluated and the results were compared. The difference test of paired samples was carried out through the t-paired samples test and the Wilcoxon
matched-pairs test. Independent sample difference tests were carried out through t-

RESULTS AND DISCUSSION

This research was conducted on grade 1A and grade 1B students of UPI Laboratory Elementary School, Cibiru Campus, Academic Year 2020/2021. From the overall population of 5 classes, grades 1A and 1B were selected based on the same number of students, the same teachers, and the average initial ability to write a beginning that did not have significant differences. The samples from each class were then classified based on the dominant learning style of the students, each consisting of 7 students with a visually dominant learning style, 7 students with a dominant auditory learning style and 7 students with a kinesthetic dominant learning style.

Observations made on student activities during cooperative learning in the experimental class showed that broadly speaking, student activity in carrying out cooperative learning in the experimental class in each learning style group was very good. Student activity is best seen in the indicators of completing tasks well and on time. The dominant learning style group with the best activities is the group of students with visual learning styles.

1. Initial Writing Ability In Class D
Students Review of VAK Learning Styles (Visual, Auditory, Kinesthetic)

The average pre-test score in the control class is still below KKM 75 and is included in the less category. However, there are students who are able to achieve KKM scores as can be seen from the maximum scores obtained in the pre-test in the control class. The average post-test score after the implementation of learning has exceeded KKM 75 and is in the sufficient category. However, there are still students who score below KKM as can be seen from the minimum score obtained in the posttest in the control class. The average n-gain score obtained was 42.37% and was included in the less effective category. This means that the application of conventional learning does not contribute effectively to differences in the initial writing ability of control class students before and after treatment. The highest average pre-test and post-test scores were achieved by the group of students with auditory learning styles, but the highest n-gain gains were achieved by the group of students with visual learning styles.

Descriptively, there was a difference in the average initial writing ability of control class students before and after treatment with a difference of -15.14. A negative sign indicates that the average post-test value is greater than the pre-test value and can be interpreted as a positive change. As for the significance of the t-paired samples value of 0.00, it indicates that H 1.1 is accepted. That is, there are differences in initial writing ability in students in control classes that apply conventional learning.

The difference in the average writing ability of control class students with visual and kinesthetic learning styles obtained the same score of 16.00. The difference in the
average writing ability of control class students with auditory learning styles obtained a lower score of 13.42. The significance value of the t-count of the entire group of student learning styles whether visual, auditory, or kinesthetic is 0.00 so that $H_1$ is accepted. That is, there are differences in initial writing ability in students in control classes that apply conventional learning in terms of VAK learning styles.

The results showed that the application of conventional learning, which in this study was carried out through a simple lecture and question and answer method with the medium of learning books and whiteboards, did not contribute effectively to the difference in writing ability of control class students before and after treatment. This is because activities in conventional learning tend to be in the complete control of the teacher and only go one way (O'Malley & Pierce in Neolaka and Neolaka). But even though the contribution is less effective, conventional learning can still achieve learning objectives to improve students’ knowledge, skills and attitudes (Bloom in Simarmata, et al)(2017)(2021).

Student activities in conventional learning are limited to paying attention to and remembering the teacher's explanations and doing the assignments given. Sadiman suggests that conventional learning is characterized by teaching more about concepts than increasing competence with the aim of making students know something instead of being able to do something. At the time of learning, students listen more by occasionally paying attention to books and whiteboards therefore, conventional learning is suitable to be applied to students with auditory dominant learning styles. In line with this opinion, the (2018) (Syarifuddin & Utari, 2022) highest average score for the implementation of the initial writing ability test, both pre-test and post-test, in the control class was achieved by a group of students with auditory learning styles. However, the highest n-gain gains were achieved by groups of students with visual learning styles.

The above conditions are likely to be influenced by the extent of the learning material delivered by the teacher, so that the abilities obtained by the entire group of learning styles at the time of the post-test will be in the same range. Shiva's n-gain achievement in the auditory learning style group that has obtained a higher average score on the pre-test will be lower than the shiva n-gain achievement in the visual learning style group if the post-test scores obtained by the two groups are not much different.

These conditions can also be influenced by other factors besides the learning techniques used both internally and externally. Among them, conventional learning tends to be boring if it is overused and makes students passive. Therefore, slowly students will be distracted from the explanations made by the teacher. Students with visual and auditory learning styles tend to do other activities such as doodling books or playing with their friends. If the classroom conditions become rowdy, it will cause the concentration of students with auditory learning styles so that the improvement in abilities achieved is lower than that of students with other learning styles (Syarifuddin & Utari, 2022) (Darmadi,
In addition, Yurmaida stated that early writing learning relies a lot on visual activities to recognize letter shapes and writing rules so that higher (2019) $n$-gain achievements are achieved by groups of students with visual learning styles.

2. Initial Writing Ability of Experimental Class D Students review of VAK Learning Styles (Visual, Auditory, Kinesthetic)

The average pre-test score in the experimental class is still below KKM 75 and is in the less category. However, there are students who are able to achieve KKM scores as can be seen from the maximum scores obtained in the pre-test in the experimental class. The average post-test score after the implementation of learning has exceeded KKM 75 and is in the good category and there are no students who have obtained a score below KKM, as can be seen from the minimum score obtained in the post-test in the experimental class. The average $n$-gain score obtained was 76.44% and was included in the effective category. This means that the application of cooperative learning accompanied by image media contributes effectively to the differences in writing ability of experimental class students before and after treatment.

The highest average pre-test score was achieved by a group of students with kinesthetic learning styles and the lowest average pre-test score was achieved by a group of students with an auditory learning style. The highest post-test average score was achieved by the group of students with visual learning style and the lowest post-test average score was achieved by the group of students with auditory learning style. The highest $n$-gain was achieved by the group of students with visual learning styles and the lowest $n$-gain was achieved by the group of students with auditory learning styles.

Descriptively, there is a difference in the average writing ability of experimental class students before and after treatment. In the Wilcoxon test, a negative rank of 0 indicates no decrease in value from pre-test to post-test. Likewise, ties 0 indicates the absence of the same value between pre-test and post-test. A positive rank of 21 showed that all experimental class students experienced an increase in scores from pre-test to post-test. A $z$-count value of -4.055 with a significance of 0.00 indicates that $H_{2.1}$ is accepted. This means that there are differences in initial writing ability in students in experimental classes who apply cooperative learning accompanied by image media. The $z$-count value of each group of learning styles is in a range of values that are not so much different from each other. The coefficient of difference in the average writing ability of the beginning in the highest experimental class is indicated by the group with kinesthetic learning style, followed by the visual learning style group and the lowest coefficient is indicated by the group with auditory learning style.

The results showed that cooperative learning accompanied by image media contributed effectively to differences in writing ability of experimental class students before and after treatment. The existence of group activities in cooperative learning can make working together synergistically, integrally, and combatively so that students who have higher abilities will help and motivate students who have
The Influence of Cooperative Learning Accompanied By Image Media on The Initial Writing Ability of Grade 1 Elementary School Students In Terms of Vak Learning Style

ordinary or lower abilities in carrying out the advanced learning process. The application of cooperative learning accompanied by image media in low-grade students is an activity that provides more stimulus to all five student senses so as to increase the effectiveness of the success of a learning (Slavin, 2015).

The use of image media in the application of cooperative learning aims to attract attention, clarify the material, illustrate facts and information. The use of image media is best used in students with a visual learning style as seen in the (Kusnadi & Sutjipto, 2013) post-test results and n-gains achieved. The highest average post-test and n-gain were achieved by the group of students with visual learning styles and the lowest post-test and n-gain average scores were achieved by the group of students with auditory learning styles. The condition also indicates that students with auditory learning styles have difficulty understanding the learning carried out through visual symbols including writing (One, 2012).

In contrast to the descriptive conditions of differences in initial writing ability during pre-test and post-test, the highest efficiency of the average difference in initial writing ability in the experimental class was shown by groups with kinesthetic learning styles. This condition shows that the application of cooperative learning itself contributes most effectively to improving the ability of students with kinesthetic learning styles, regardless of the advantages of using image learning media for students with visual learning styles.

Students with a kinesthetic learning style think better when moving or walking. They tend to better understand the task if they try it directly. Cooperative learning activities carried out in the form of team games where students move forward to pick up question cards and then answer questions in writing on the blackboard are activities that trigger the motivation of students with kinesthetic learning styles to follow learning more focused and ultimately improve their abilities (Sopiatin - The Funeral, 2011).

3. The Effect of Applying Cooperative Learning D to include Image Media on Initial Writing Ability for Grade 1 Students of SD Reviwed of VAK Learning Styles (Visual, Auditory, Kinesthetic)

A higher N-gain was found in the experimental class of 76.44 which means that the application of cooperative learning accompanied by image media contributes effectively to the improvement of students' initial writing skills. The increase in n-gain in the control class was 42.37 and was in the ineffective category.

The highest n-gain scores in both the control class and the experiential class were achieved by groups of students with visual learning styles. The lowest n-gain score in the control class was achieved by a group of students with kinesthetic learning styles, while the lowest n-gain in the experimental class was achieved by a group of students with auditory learning styles. This means that the application of cooperative learning accompanied by image media contributes more to the improvement of students’ initial writing ability with visual learning styles and contributes less to the improvement of students' initial writing ability with auditory
learning styles

Table 1

<table>
<thead>
<tr>
<th>Samples</th>
<th>Mean</th>
<th>Independent Samples Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Control Class</td>
<td>42.37</td>
<td>0.89</td>
</tr>
<tr>
<td>Experimental Class</td>
<td>76.44</td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS data processing results

Table 1 shows an F value of 0.89 with a significance of 0.34 which means that the variance of the control class and experimental class n-gain data is homogeneous. A t score of -9.48 that descriptively there was a difference in the average improvement in writing ability of control class and experimental class students. A negative sign indicates that the average n-gain of the experimental class is greater than the average n-gain of the control class. As for the significance of the t-independent samples value of 0.00, it indicates that H$_{3.1}$ is accepted. This means that the application of cooperative learning accompanied by image media has a statistically significant effect on improving initial writing skills.

The t-independent samples test differences in the improvement of initial writing ability in students in control classes and experimental classes in terms of VAK (Visual, Auditory, Kinesthetic) learning styles can be seen in the following table:

Table 2.

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Samples</th>
<th>Mean</th>
<th>Independent Samples Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Visual</td>
<td>Control Class</td>
<td>43.18</td>
<td>2.09</td>
</tr>
<tr>
<td></td>
<td>Experimental Class</td>
<td>79.72</td>
<td></td>
</tr>
<tr>
<td>Auditorium</td>
<td>Control Class</td>
<td>42.63</td>
<td>2.07</td>
</tr>
<tr>
<td></td>
<td>Experimental Class</td>
<td>71.64</td>
<td></td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>Control Class</td>
<td>41.30</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>Experimental Class</td>
<td>77.95</td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS data processing results

Table 2 shows F values with significance greater than 0.05 in both groups of students with visual, auditory and kinesthetic learning styles meaning that the variance of n-gain data across the group is homogeneous. A negative marked t score
(both in the group of students with visual, auditory and kinesthetic learning styles), showed that descriptively there was a difference in the average improvement in writing ability of the beginning of the control class students and the experimental class where the average n-gain of the experimental class was greater than the average n-gain of the control class. The significance of the t-independent samples value of 0.00 shows that the application of cooperative learning accompanied by image media has a statistically significant effect on improving initial writing skills in both groups of students with visual, auditory and kinesthetic learning styles.

Table 3.
Test the Effect Size of Applying Cooperative Learning Accompanied by Image Media to Improve Initial Writing Ability

<table>
<thead>
<tr>
<th>Cohen’s d</th>
<th>LB Confidence Interval</th>
<th>UB Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.93</td>
<td>2.30</td>
<td>3.55</td>
</tr>
</tbody>
</table>

Source: Data processing with Ms. Excel

Cohen's coefficient of 2.93 shows that the effect of applying cooperative learning accompanied by image media on improving initial writing ability falls into a very large category. The magnitude of the effect (effect size) of the application of cooperative learning accompanied by image media on improving initial writing ability can be seen in the following table:

Table 4.
Test Effect Size Application of Cooperative Learning Accompanied by Image Media to Improve Initial Writing Ability In Terms of VAK Learning Style (Visual, Auditory, Kinesthetic)

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Cohen’s D</th>
<th>LB Confidence Interval</th>
<th>UB Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual</td>
<td>2.56</td>
<td>1.40</td>
<td>3.73</td>
</tr>
<tr>
<td>Auditorium</td>
<td>2.67</td>
<td>1.51</td>
<td>3.83</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>3.53</td>
<td>2.36</td>
<td>4.69</td>
</tr>
</tbody>
</table>

Source: Data processing with Ms. Excel

Cohen's coefficient greater than 2 indicates that the influence of the application of cooperative learning accompanied by image media on improving initial writing ability in both visual, auditory and kinesthetic learning style groups falls into a very large category. The smallest Cohen coefficient is seen in the visual learning style group and the largest Cohen coefficient is seen in the kinesthetic learning style group which means that the application of cooperative learning accompanied by image media to improve initial writing ability is more effectively carried out in students with kinesthetic
The results showed higher n-gains in experimental classes which means that the application of cooperative learning accompanied by image media contributes more effectively to improving students' initial writing ability compared to the application of conventional learning in control classes. This condition proves that cooperative learning is superior to conventional learning in developing knowledge, abilities and skills fully in an open learning atmosphere (Isjoni in Hapudin) (2021).

Descriptively, the application of cooperative learning accompanied by image media contributes the most to the improvement of students' initial writing ability with a visual learning style and contributes the lowest to the improvement of students' initial writing ability with auditory learning style. However, the effect size test showed that the application of cooperative learning accompanied by image media had the highest influence on improving initial writing ability in students with kinesthetic learning styles and had the lowest effect on students with visual learning styles. This research is in line with the results of Johnson and Johnson's research which proves that cooperative learning is superior in helping students understand difficult concepts, improving students' abilities and skills, and giving benefits to both lower and upper group students who work together to complete tasks. (2015)

These conditions can be influenced by other factors, both internal and external, in addition to the learning activities carried out. Internal factors include (1) the level of intelligence/intelligence of students; (2) student attitudes; (3) student talents; (4) student interests; and (5) student motivation. The external factors consist of the student's social environment which includes the family environment, school environment, and community environment and (Shah, 2017) non-social environment of students which includes school buildings, residential houses, learning tools, weather conditions and learning time used by students (Shah, 2017).

Slavin explained that cooperative learning is more effective than conventional learning because it is based on 3 main foundations, namely motivation, social cohesion (interaction) and cognitive ability. The application of cooperative learning will unconsciously provide a stimulus to students that makes it easier for educators to carry out learning and makes it easier for students to actively interact with each other in the process of receiving material. The element of competition between groups in cooperative learning will increase motivation and interaction between students so that the group gets the best results and ultimately improves students' cognitive abilities (2015).

CONCLUSIONS

Based on the results of the research and discussion that has been carried out regarding the effect of cooperative learning with media images on students' initial writing abilities in terms of VAK learning styles in grade I students in elementary
schools, the following conclusions are obtained: 1) There are differences in students' initial writing abilities in the control class that applies conventional learning in terms of VAK learning style (Visual, Auditory, Kinesthetic). 2) There are differences in students' initial writing abilities in the experimental class by implementing cooperative learning accompanied by media images in terms of the VAK learning style (Visual, Auditory, Kinesthetic). 3) There is an effect of the application of cooperative learning accompanied by picture media on the initial writing ability of 1st-grade students in terms of the VAK (Visual, Auditory, Kinesthetic) learning style with the highest effect seen in students with a kinesthetic learning style.

REFERENCES


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