Improving Students' Reading Comprehension Ability and Learning Activeness Using Project-Based Learning Model Assisted by Visual Media

Kadek Galuh Andriasih Rahayu*, I Made Ardana2, Ni Ketut Suarni3

1,2 Pendidikan Dasar, Universitas Pendidikan Ganesha, Singaraja, Indonesia

ABSTRACT

The low ability of students to understand reading and the low level of student activity in the learning process is influenced by a lack of design innovation, learning processes, and a lack of strengthening literacy for students. This research aims to analyze the project-based learning model assisted by visual media on the reading comprehension ability and active learning of Indonesian language students in grade II elementary school. This pseudo-experimental research is designed by a single factor independent group design. The population in this study was 297 students with a total of 62 students as a sample determined by random sampling technique. Data were collected by tests of reading comprehension and observation of student learning activity. Then, the data was analyzed using the MANOVA technique. The results showed that there were differences in reading comprehension and learning activity simultaneously among students who participated in the project based learning model assisted by visual media with conventional learning. This means that the project based learning model with the novelty of visual media has an effect on reading comprehension and active learning of second grade elementary school students. The research results can be used as a reference in making learning designs more innovative.

1. INTRODUCTION

Education has a very important role in the formation of quality human resources. The quality of education is one of the factors that determines the progress of a nation (Kurniawati, 2022; Herbimo, 2020). In the world of education, learning can be interpreted as a process that shows positive changes so that at the final stage new skills, abilities and knowledge will be obtained from experience and learning (Asha, 2021; Anisa et al., 2020). Education is a fundamental thing that can improve the quality of human resources (Sulaksana & Wibawa, 2019; Dewi et al., 2018). In order to realize this, a curriculum and implementation of the learning process are needed that are able to realize the learning objectives. Indicators of the success of the learning process are based more on the ability to communicate, share and use information to solve...
complex problems, be able to adapt and innovate in response to new demands and changing circumstances, and expand the power of technology to create new knowledge (Tarihoroan, 2019; Septikasari & Frasandy, 2018). Children’s inability to express their desires, feelings and actualize what is within them makes the problems faced by children even greater. So children need the ability and skills to express the problems they face to other people.

Language is a tool or means for communicating with other people. Language has a very important role in a person’s intellectual, social and emotional development (Ali, 2020; N. Hidayah, 2017). The aim of learning Indonesian in elementary schools is so that students can communicate effectively and efficiently both orally and in writing and use Indonesian to increase intellectual abilities, as well as emotional and social maturity (Ulvi, 2023; Farhurohman, 2017). In learning Indonesian, there are four aspects of language skills that students must master, namely listening skills, speaking skills, reading skills and writing skills. Reading is an important thing in the learning process in all subjects, because various knowledge can be obtained through reading. Reading is not just about pronouncing written symbols, but what is more important is that readers must be able to understand various information or messages contained in the text they read (Pambudi et al., 2023; Tahmidaten & Krismano, 2020). Reading emphasizes understanding to obtain impressions and messages or ideas so that students are able to recognize and understand word by word and sentences and texts as a whole, so that the more children understand the meaning of the reading they read, the more ideas students understand. One form of reading skill is reading comprehension (Afrianti & Marlina, 2020; Harianto, 2020).

Students’ reading comprehension abilities greatly influence students’ ability to absorb material during learning and help students develop other skills through reading. Low reading comprehension skills will make students fall behind in learning so that they tend to have difficulty achieving achievements when they move up to a higher class. Reading comprehension skills have benefits for students, namely helping students learn effectively, improving their learning achievement, and improving understanding and other skills that can be achieved through reading (Frans et al., 2023; Putri et al., 2019). Students can gain most of their knowledge through reading comprehension activities. In order to determine students’ achievements in reading comprehension, an assessment is certainly needed. Assessment of student learning outcomes is not only seen from the skills and knowledge obtained from learning, but also from the attitudes applied by students during the learning process (Supiadi et al., 2023; Ulansari, 2018). To achieve the expected learning outcomes, good cooperation between students and teachers is needed. One form of the results of the learning process is student learning activity. Student learning activeness can be seen from the many student activities as a form of involvement in the learning process. Active learning can be seen when students can pay attention to the teacher’s explanation, understand the problem given, actively ask and answer questions, work together in groups, are able to express opinions, give friends the opportunity to express opinions in groups, and present the results of group work (Prasetyo & Abdulh, 2021; Ramadhan, 2021).

Achieving learning objectives will obtain optimal learning outcomes so as to obtain the expected results. However, in reality in the field, the reading comprehension ability of class II students in Indonesian language subjects is still low. This appears when students are unable to find important information from the text they have read and have difficulty answering the questions given. Students have difficulty determining the main idea of each paragraph and are unable to retell the contents of the reading coherently either in writing or orally. Students just read but have difficulty remembering the content of the reading. This happens because the learning process is still carried out using a conventional model using lecture and assignment methods. When learning to read in Indonesian subjects, students are immediately given reading material without any reading procedures that can arouse students’ curiosity, then students are assigned to read silently and answer questions in the exercise book. If this is done repeatedly in every reading activity, reading will just become a meaningless routine. The use of the lecture model in the learning process causes students to tend to be passive (Kasanah et al., 2019; Kristin & Rahayu, 2016). The learning model applied does not show that the model can encourage and provide a strong influence on students to be active students and improve students’ reading comprehension skills (Ariyana & Suestika, 2022; Cantona & Sudarma, 2020). Students are less responsive in the learning process, only listen to lectures from the teacher, and only a few students appear active in class.

If not addressed immediately, students’ low ability to read, understand and be active can make it difficult for students to understand information or lesson material. One way that can be done to overcome this problem is to apply a learning model that can improve students’ abilities in reading comprehension and active learning. The learning model that can be used is the Project Based Learning model. Project based learning is a learning model that is student-centered and provides meaningful learning experiences for students (Heldisari, 2023; Rasidah et al., 2022; Wibowo et al., 2022). Project Based Learning (PJBL) also
allows students to expand their knowledge of a particular subject. The knowledge gained by students becomes more meaningful and learning activities become more interesting.

The implementation of this model provides direct training to students by honing and getting them used to critical thinking and skills in everyday life (Anggraini & Wulandari, 2021; Noviati, 2021). The Project Based Learning (PjBL) model motivates students to be actively involved in the learning process, so that the expected learning outcomes can be achieved well (Abidin et al., 2021; Handika et al., 2021). The PjBL model was chosen to be developed in Indonesian language learning because through the projects or activities developed, Indonesian language learning, especially in reading comprehension activities, becomes more interesting and enjoyable. A pleasant atmosphere in learning can also stimulate students’ brains to remember information for a long time and recall it when needed. Apart from implementing learning models, learning media can also arouse elementary school students’ curiosity. The learning media used can be designed in an interesting and communicative way to increase student learning motivation. Visual media is a learning media that can help teachers and students understand learning material. Visual media is often called images or parables which can facilitate understanding and strengthen memory (Suryana et al., 2022; Pasaribu, 2019). Visual media is a medium that is easy to obtain and can make it easier for students to work on projects, so that students do not need a lot of time to complete the project (Isman et al., 2022; Supardi, 2017).

The implementation of project based learning assisted by visual media is expected to have a better influence on students’ reading comprehension abilities and active learning. Based on the results of previous research, it is known that students’ learning activity has increased by implementing the project based learning model (Hidayah et al., 2023; Yulianto et al., 2017). Previous research also revealed that the PjBL model influences student learning outcomes (Azizan & Tanjung, 2020; Fatnah et al., 2021). As a supporter of the learning process, visual media also has an influence on student learning outcomes (Adam, 2021; Darmayoga & Suparya, 2021). Several previous studies only revealed the influence of the PjBL learning model on student activity and learning outcomes. There is no research that discusses this project-based learning assisted by visual media on learning outcomes and student activity. The novelty in the form of visual media combined with the project based learning model is expected to improve learning outcomes and student learning activity in Indonesian language subjects. The aim of this research is to analyze the project based learning model assisted by visual media on the reading comprehension and learning activeness of Indonesian language students in class II elementary school. The results of this research can be used as a reference in designing more innovative learning models, so that they can support the learning process optimally.

2. METHOD

The research carried out is a type of experimental research. This experimental research is included in a quasi-experimental design (Quasi Experimental Design). The population in this study were all second grade elementary school students in the Srikandi Cluster, East Denpasar. The population members in this study have gone through an equality test based on the assessment of learning outcomes at the end of the odd semester to determine that the population members have the same abilities. Next, the sample will be selected using a random sampling technique. This lottery technique is used because it does not allow random sampling of research subjects from the existing population, because the subjects are naturally formed in one group or one class. Based on random sampling results, it was found that class II A SDN 1 Sumerta Denpasar was the experimental class and class II A students of SDN 13 Kesiman were the control class. The experimental class will receive treatment applying learning using a project based learning model assisted by visual media, while the control class will not be given special treatment. After treatment in the control class and in the experimental class, a post-test will be given to determine the learning outcomes of each group, both experimental class and control class. The data collection instruments used in this research were reading comprehension tests to measure reading comprehension skills and observation sheets to assess students’ active learning. The reading comprehension test consists of 20 questions that have been tested for feasibility through content validity testing on experts and instrument testing on samples. The reading comprehension ability instrument grid and the observation sheet grid for student learning activities are presented in Table 1 and Table 2.

**Table 1. Reading Comprehension Ability Instrument Grid**

<table>
<thead>
<tr>
<th>Ability Dimensions Reading Comprehension</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literal Understanding</td>
<td>Find and determine the main ideas, information and facts in discourse</td>
</tr>
</tbody>
</table>
1. ABILITY DIMENSIONS READING COMPREHENSION

<table>
<thead>
<tr>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reorganize</td>
</tr>
<tr>
<td>Inferential Understanding</td>
</tr>
<tr>
<td>Evaluation</td>
</tr>
<tr>
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</tbody>
</table>

2. Table 2. Student Learning Activity Observation Sheet Grid

<table>
<thead>
<tr>
<th>Dimensions of Student Learning Activeness</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Activities</td>
<td>Students pay attention to the teacher when explaining the learning material</td>
</tr>
<tr>
<td></td>
<td>Students read the material studied.</td>
</tr>
<tr>
<td>Oral Activities</td>
<td>Students answer questions asked by the teacher.</td>
</tr>
<tr>
<td></td>
<td>Students ask the teacher when there is material they do not understand.</td>
</tr>
<tr>
<td>Mental Activities</td>
<td>Students can complete/complete the assignments given by the teacher.</td>
</tr>
<tr>
<td></td>
<td>Students can provide conclusions regarding the lesson</td>
</tr>
<tr>
<td>Emotional Activities</td>
<td>Students are enthusiastic and actively involved in learning</td>
</tr>
<tr>
<td></td>
<td>Students are confident when presenting the results of their projects.</td>
</tr>
</tbody>
</table>

3. RESULTS AND DISCUSSION

3.1. RESULTS

Testing of reading comprehension instruments includes test item validity, differentiation test, difficulty level test, distractor test, and reliability test. The feasibility of the observation sheet was tested based on content validity to experts. The data that has been obtained is analyzed in three stages, the first stage is descriptive analysis, the second stage is testing the hypothesis prerequisites, and the third stage is hypothesis testing. Next, research hypothesis testing was carried out using statistical methods. The first hypothesis was carried out using ANOVA analysis, while the second and third hypotheses used MANOVA analysis. Before testing the hypothesis, a prerequisite test for analysis is first carried out which includes a test for normality of data distribution, a test for homogeneity of variance, and a correlation test between dependent variables.

3.2. DISCUSSION

Measurements were carried out after the experimental group was given treatment in the form of a project based learning model assisted by visual media and the control group was not given treatment with a project based learning model assisted by visual media. The meetings were held seven times. The results of descriptive statistical analysis of this research data are presented in Table 3.

4. Table 3. Recapitulation of Research Results

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Experimental Class</th>
<th>Control Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ability Read</td>
<td>Liveliness Study</td>
</tr>
<tr>
<td></td>
<td>Understanding Student</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>83.28</td>
<td>86.85</td>
</tr>
<tr>
<td>Median</td>
<td>85</td>
<td>85.42</td>
</tr>
<tr>
<td>Mode</td>
<td>80</td>
<td>85.42</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>7.47</td>
<td>5.78</td>
</tr>
</tbody>
</table>

Based on these results, it is known that the reading comprehension ability of experimental class students is higher than that of control class students. This is based on the average reading comprehension ability and the trend of reading comprehension ability scores obtained by the two groups. The average reading comprehension ability score of experimental group students was 83.28 (very high category). In the
control class, the average score of students’ reading comprehension ability was 68.88 (high category). Thus, the reading comprehension ability of the experimental class was higher than the reading comprehension ability of the control group. Apart from that, the average learning activity of experimental class students was higher than that of control class students. This is based on the average results of the learning process assessment through observation sheets, namely experimental class students obtained an average of 86.85 (very high category) while the control class obtained an average of 79.93 (high category). Thus, the learning activity of experimental class students was higher compared to the learning results of the control group.

Based on the analysis prerequisite tests, it was found that the data on the reading comprehension ability and learning activeness of students in the experimental class and control class were normal and homogeneous. And there is no correlation between the variables of reading comprehension ability and student learning activeness. Hypothesis 1 testing was carried out using MANOVA which showed that the significance value of the Manova test via Pillai trace, Wilks’ Lambda, Hotelling’s trace, and Roy’s largest Root was 0.001 (sig. < 0.05). Thus, H0 is rejected and H1 is accepted. So it can be concluded that there is a simultaneous difference in the reading comprehension ability and learning activeness of students who are taught with the project based learning model assisted by visual media and elementary school students who are taught with the conventional learning model.

Hypothesis 2 and 3 testing was carried out using ANOVA. Based on the results of the second hypothesis test, it was found that Fcount = 12.832 while Ftable = 4.00. This means Fcount > Ftable and sig. = < 0.05 so H0 is rejected and H1 is accepted. So it can be concluded that there is a difference in reading comprehension ability between students who take part in learning using the project based learning model assisted by visual media and students who take part in conventional learning. The results of the third hypothesis test showed that the value of Fcount = 32.663 while Ftable = 4.00. This means Fcount > Ftable and sig. = < 0.05 so H0 is rejected and H1 is accepted. So overall it can be concluded that, there is a difference in student learning activity between students who take part in learning using the project based learning model assisted by visual media and students who take part in conventional learning.

**Discussion**

The research results show that there are differences in reading comprehension ability and simultaneous learning activeness of students who take part in the project based learning model assisted by visual media and conventional learning. This is because the experimental class was given treatment, namely the application of a project based learning model assisted by visual media in each learning process for Indonesian language subjects. This research uses steps in a project based learning model assisted by visual media. First, the lesson opens with a challenging question, the teacher conveys the topic using visual media in the form of a story with pictures. Second, planning projects carried out collaboratively between teachers and students. In this way, students are expected to feel ownership of the project. Third, compiling an activity schedule, namely teachers and students collaboratively compiling an activity schedule in completing the project.

Fourth, the teacher supervises the progress of the project. The teacher is responsible for monitoring student activities while completing the project by facilitating students in each process and teaching students how to work in a group according to their respective roles without ignoring the interests of the group. Fifth, assessment of the products produced. At this stage, assessment is carried out to help teachers measure the achievement of standards, play a role in evaluating each student’s progress, provide feedback about the level of understanding that students have achieved, and assist teachers in developing subsequent learning strategies. Product assessment is carried out when each group presents their product in turn. Sixth, an evaluation is carried out at the end of the learning process. Teachers and students reflect on the activities and results of projects that have been carried out. The reflection process is carried out both individually and in groups. At this stage, the teacher guides the project presentation process, responds to the results, then the teacher and students reflect or conclude the topics discussed.

This learning syntax helps students understand reading more systematically so they can respond to the reading. Students find it easier to determine important information in reading so that it has an impact on improving students’ reading comprehension skills. Through learning activities with syntax, it also provides opportunities for all students to be actively involved in the learning process so as to improve the reading comprehension skills of all students. Theoretically, it can be said that the ability to read comprehension includes understanding simple meanings, understanding significance or meaning such as the author’s intent and purpose, evaluation or assessment in content and form, as well as a reading speed that is flexible and easily adjusted to circumstances that involve all of the student’s mental activity and thinking in understand, criticize, and reproduce written discourse (Tanjung et al., 2019; Hidayah & Hermansyah, 2018).
The activities that students can do are very varied according to the reading strategies the teacher applies in learning. Project-based learning not only improves literacy skills but also makes students curious and independent learners. Students involved in authentic literacy projects realize the high level of development of writing skills and reading comprehension, moreover PjBL involves students more deeply and meaningfully in literacy. When students are given assignments and autonomy as well as a little guidance by the teacher, students will build a path or framework that will make themselves critical thinkers.

Student choice and involvement are basic elements of PjBL, moreover the PjBL teacher acts as a facilitator who gives students the option to choose a project and continue on their own through guidance. A project-based learning approach can have a positive impact on students’ ability to understand written texts as well as students’ active learning, because students actively explore, select, collect, analyze and understand sources of information (Salsabila & Hindun, 2021; Wahyuningsih, 2020). In project-based learning in his research, students work in small groups on academic assignments. Students in the same small group cooperate with each other to achieve a collective outcome over a certain period of time.

This research found that there were differences in the reading comprehension abilities of students who took part in learning using the project based learning model assisted by visual media and students who took part in conventional learning. The main point in learning project based learning assisted by visual media is mastering the content of the reading, not whether it is beautiful, how fast or slow the reading is, but the function of the group is being able to produce different results. Here each student is not based on just one thought, but each student can express ideas from their own thoughts regarding a reading. Every student involved in project based learning assisted by visual media is able to find the main idea in a reading, and evaluate each other’s ideas and experiences so that there is interaction with one another.

Apart from that, students can also actively express their thoughts. This is in line with the results of previous research which shows that students freely express all their thoughts about a reading so that students’ reading comprehension abilities increase to the maximum (Farisia et al., 2021; Fitria & Indra, 2020). Theoretically, it can be said that the project based learning model assisted by visual media is a learning model that is used to improve students’ reading comprehension skills by connecting old information with new information to gain new knowledge. Factors that influence the level of reading comprehension ability that can be achieved by students and the development of their reading interest depend on the factors of the student concerned, their family, their culture, and the school situation.

The project based learning model assisted by visual media has the advantage of providing children with experience in organizing activities and children learning to be responsible for the work they have been given and fostering a spirit of mutual cooperation among the children involved in these activities. The project method can train students’ focus to solve problems. These results are in line with the results of previous research which revealed that the project learning strategy focuses on students practicing problem solving abilities and other meaningful tasks (Amelia & Aisya, 2021; Nurfitriyanti, 2016). The implementation of the project based learning model can make students and their groups collaborate more actively in solving complex problems with real products in the form of goods. This is in accordance with the results of previous research which revealed that PjBL can train students to collaborate more with other students (Sukiman et al., 2023; Nirmayani & Dewi, 2021).

Learning with the PjBL model assisted by visual media encourages students to be active in the learning process. Students are formed into several groups so they can communicate with each other regarding the ideas discussed while studying. Students are encouraged to be able to solve project design problems given in groups (Hartini, 2017; Utama & Sukaswanto, 2020). The project-based learning learning model assisted by visual media is more dominant for students to pay attention, listen to the teacher’s explanation, answer the teacher’s questions, and ask questions to the teacher or other students. Apart from that, students also note down the teacher’s explanation or discussion results, read material, give opinions during discussions, listen to friends' opinions, provide responses, practice completing practice questions, and dare to present discussion results according to indicators of student learning activity (Darmisih et al., 2023; Kanza et al., 2020).

The novelty of visual media in the project-based learning model for Indonesian language subjects has been proven to be able to improve students’ reading comprehension and activeness. This is based on the differences in learning outcomes between students who take part in learning using the project based learning model assisted by visual media and students who take part in conventional learning. The implication of this research is that it can be used as a reference in designing innovative and effective learning to increase student participation. Meanwhile, the limitation of this research is that the subject only focuses on one group. Future research can determine a wider range of subjects as the population.
4. CONCLUSION

Based on the results of research and statistical tests that have been carried out, the results show that there are differences in students' reading comprehension abilities and students' learning activities simultaneously between students who take part in learning using the project based learning model assisted by visual media and students who take part in conventional learning. The novelty of visual media in the project-based learning model provides new colors that can make the learning process more effective.

5. REFERENCES


