Integrated Thematic Learning Based On Discovery Learning in Excellent Islamic School Bukittinggi

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Abstract
This study aims to describe the increase in activity and comprehensive thematic learning outcomes based on discovery learning at Excellent Islamic School at grade IV, Bukittinggi. Due to a number of factors that cause low activity and learning outcomes, encouraging research motivation, among others, students are not accustomed to learning to find information on their own, are not accustomed to collecting and processing facts or information by themselves, and proving that the knowledge received is correct or incorrect. This type of research is a classroom action research using qualitative and quantitative approaches. The research procedure was preceded by planning, implementing, observing, and reflecting. The research data is in the form of observations of the learning process and the results of the action. This research was conducted in the second semester of the 2019/2020 academic year. The research subjects were 26 grade IV students consisting of 12 boys and 14 girls. The results of the research on the visual activity of students in cycle I got good category (78%) and cycle II got very good category (achievement 89%) with an increase of 11%. The oral activity increase 16% from 62% at cycle 1 to 78% at cycle II. The learning outcomes of students in cycle I were categorized as poor and in cycle II the average of the three subjects was categorized as good. From the research results it can be concluded that learning using the Discovery Learning model can increase the activity and learning outcomes of students in grade IV of Excellent Islamic School Bukittinggi.

Keywords: activities, discovery learning, integrated thematic, learning outcomes

Abstrak
Penelitian ini bertujuan untuk mendeskripsikan peningkatan aktivitas dan hasil belajar tematik komprehensif berbasis discovery learning di Pesantren Unggulan Kelas IV Bukittinggi. Dikarenakan sejumlah faktor yang menyebabkan rendahnya aktivitas dan hasil belajar, yang mendorong motivasi penelitian antara lain siswa tidak terbiasa belajar mencari informasi sendiri, tidak terbiasa mengumpulkan dan mengolah fakta atau informasi sendiri, dan membuktikan bahwa pengetahuan yang diterima benar atau salah. Jenis penelitian yang digunakan adalah penelitian tindakan kelas dengan pendekatan kualitatif dan kuantitatif. Prosedur penelitian didahului dengan perencanaan, pelaksanaan, observasi, dan refleksi. Data penelitian berupa observasi proses pembelajaran dan hasil tindakan. Penelitian ini dilaksanakan pada semester genap tahun ajaran 2019/2020. Subjek penelitian adalah 26 siswa kelas IV yang terdiri dari 12 laki-laki dan 14 perempuan. Hasil penelitian aktivitas visual siswa pada siklus I mendapatkan kategori baik (78%) dan siklus II mendapatkan kategori sangat baik (pencapaian 89%) dengan peningkatan sebesar 11%. Aktivitas oral meningkat 16% dari 62% pada siklus I menjadi 78% pada siklus II. Hasil belajar siswa pada siklus I dikategorikan kurang dan pada siklus II rata-rata ketiga mata pelajaran dikategorikan baik. Dari hasil penelitian dapat disimpulkan bahwa pembelajaran dengan menggunakan model Discovery Learning dapat meningkatkan aktivitas dan hasil belajar siswa kelas IV Pesantren Unggulan Bukittinggi.

Kata kunci: kegiatan, discovery learning, tematik terintegrasi, hasil belajar

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INTRODUCTION

Thematic integrated learning is learning that combines material from various fields of study. This is done considering the child's development, especially at school age, is still holistic, so it will be more difficult for students to learn with material that has been used separately or independently (Malkova & Kiselyova, 2014); (Waslina et al., 2019). Thematic integrated learning is learning that combines several materials in a learning process. The term 'Thematic Learning' is basically an integrated learning model that uses topics to combine several lessons so that they can provide meaningful experiences for students, make them independent, and use them in their daily lives. In the process of realizing education, independence has not only become one of the points of interest for academic ability, it has also been mentioned as one of several aspects of educational goals in the law (Waslina et al., 2019); (Dina & Efendi, 2020). Integrated thematic learning is a learning approach that integrates various competencies from various subjects into various themes (Sobri & Ningrum, 2015); (Atmazaki, 2013).

Integrated thematic learning allows students to be more active by directly participating in the learning process, because they are characterized by topic learning, student-centered, and provide students with direct experience, without dividing learning topics, put forward concepts in it flexible learning topics (Abizar et al., 2018); (Sunata et al., 2019). Therefore, the learning process becomes meaningful to students (Mansurdin et al., 2019); (Wulan et al., 2018); (Rahmadhani et al., 2020). According to Permendikbud Number 24 of 2016, one of the themes taught in grade IV is the area where I live. Where one of the sub-themes taught is pride in the area where I live. Where one of the basic competencies contained in it are connecting force with motion in events in the surrounding environment, presenting experimental results on the relationship between force and motion, examining characters in fictional texts, and conveying the identification results of characters in fictional texts. orally, in writing, and visually (Nurmalasari et al., 2016).

Based on the author's experience, observations at the Excellent Islamic Elementary School in Bukittinggi obtained data that: (1) teachers are not used to giving descriptions of material that contain problems to students, (2) students are not used to collecting and processing information themselves because of learning activities not yet encouraging students to discover the concept of learning for themselves, as a result the knowledge received by students is only as memorization not as understanding, (3) students have never proven that the knowledge they have received is true / not so that it seems that students are less actively involved in learning and only receive information from what the teacher says, (4) the teacher explains that there is still a separation between one subject and another, (5) In addition, only a small proportion of students dare to express their ideas or opinions in learning. Low student activity in learning causes learning outcomes to be low. From the results of the interview, it was found that the teacher did not understand the application of learning models. This can be seen from the data on the first semester test scores of students in grade IV of Excellent Islamic School, Bukittinggi, which shows that many students have not yet achieved completeness with the minimum completeness criteria (KKM), which is 75. This can be seen from the results of the participants' semester test scores students It turns out that out of the 26 students only 10 who finished, while 16 people who did not.

To overcome this, it is necessary to update the teaching methods of teachers during the learning process. One of the most important factors in learning is the selection and use of learning models. The learning model serves to guide the learning process. In Permendikbud No. 22 of 2016 the suggested learning model is Discovery Learning. Discovery Learning develops active students' learning methods by discovering themselves, investigating themselves, then the results obtained will last a long time in the memory of students (Safitri et al., 2020); (Suwandari et al., 2019); (Safitri et al., 2020); (Winoto & Prasetyo, 2020). Discovery Learning can help teachers and students in achieving curriculum demands, some of which are from students...
being told to learners to find out, from the teacher as the only source of learning to learning based on various learning resources, from learning verbalism to skills applicative. It is found that the use of discovery learning models will turn the teacher-centered learning process into a student-centered learning process. Discovery learning model is a learning model that enables students to be active in learning activities (Desyandri et al., 2019); (Hermaliza et al., 2019).

The advantage of the discovery learning model is that it can help students improve their cognitive skills and processes. Knowledge gained through this model is very personal and effective because it enhances students’ understanding, memory and transfer ability, improves students’ problem-solving abilities, and helps students enhance their self-concept because they gain trust. Work with others, encourage students to participate in teaching and learning activities, encourage students to formulate their own hypotheses, and train students to learn independently. According to the research of Rahmatina the discovery learning model can be used to improve the comprehensive topic learning process of elementary school at Bukittinggi fourth grade students (Hidayati et al., 2019). This is because discovering the characteristics of learning models can help students discover their own concepts and facts, thereby increasing their interest in the learning process. Through the Discovery Learning model, the material learned by students will be more meaningful. Learning will be more meaningful if students experience what they are learning first hand, in the sense that it is not just listening but trying because discovery is learning while doing something.

METHOD

This type of research is Classroom Action Research (PTK). This cycle model has four components, namely planning, implementing, observing and reflecting. This research was conducted in two cycles, namely the first and second cycles. At the end of each cycle, a learning outcome test is carried out. In each cycle, observations were made of the activities of students during the learning process. This classroom action research was conducted in the fourth grade of Excellent Islamic Elementary School in Bukittinggi. The subjects in this study were grade IV educators and students who were registered in the second semester of the 2019/2020 school year with 26 students. The instruments used in this study were observation and tests.

The study was conducted in two cycles, each cycle consisting of two meetings. Researchers carry out learning activities in the classroom in the form of interaction activities between educators and students and between students and students. The results of the observations are guidelines for making improvements, the weaknesses and constraints found in cycle I are corrected in cycle II and the existing strengths are recommended in the process and subsequent learning outcomes, the weaknesses found in cycle I are discussed with the observer to improve the implementation of the cycle II. The data sources for this grade action research are the activities and learning outcomes in grade IV of Excellent Islamic Elementary School in Bukittinggi with the Discovery Learning model. Learning outcomes are used to observe the increase in student activities and learning outcomes after taking actions. When using the observation table to perform actions, obtain student data through observation.

RESULT AND DISCUSSION

The research is carried out through planning, implementing learning, observing the implementation of learning, and reflecting on each action. In each cycle, learning is divided into three activities, namely start, core and end. This activity begins with checking the readiness of students, the classrooms and the learning media used, the teacher guides the students to pray with the leadership of the grade leader, all students pray with wisdom, then the teacher takes a student attendance. The teacher held an appreciation by asking and answering questions about Malin Kundang’s story and relating it to the learning theme that will be studied.
today, and the teacher introduced learning material with the theme of the area where I live, the sub-theme of being proud of the area where I live. When the teacher asks questions, the students still don't seem motivated. Several students raised their hands to give their answers, but only three students were given the opportunity by the teacher to present their answers. Then students listen to the learning objectives described by the teacher, and are ready to learn. Learning activities are carried out in accordance with the steps of the Discovery Learning model which can be described as follows:

**Step 1** the teacher provides stimulation, this activity begins with the teacher distributing the text of the story "Malin Kundang Anak Durhaka" to each student and asking students to read it carefully. When reading fictional texts, the teacher assesses visual activities. The teacher asks students to answer questions based on the text, namely (1) mentioning the characters in the carita, (2) mentioning the character of the characters in the story, (3) mentioning the mandate contained in the story, (4) what happened when Malin's mother cursed his son?

**Step 2** students are given the opportunity to identify problems, the teacher gives time to students to find answers to the questions given. After the teacher gives the teacher time, the teacher asks students to read the results of their assignments to the class. With the teacher's direction, the students retell the story of "Malin Kundang Anak Durhaka" in their own language. Then the students listen to the explanation from the teacher about the story of Malin Kundang Anak Durhaka.

**Step 3** of gathering information, the teacher displays a picture related to the story of Malin Kundang Anak Durhaka when his mother cursed him. Then the teacher and students asked questions about pictures related to electric forces. The event of lightning striking the Malin Kundang ship is an electric force. What is the relationship between force and motion? How can force affect motion? To answer this question, the teacher divides students into 5 groups. The teacher asks students to observe objects related to electric forces in the environment around the school in groups. Students are given worksheet about electric force and the relationship between force and motion.

**Step 4** of information processing, at this stage students try to practice activities related to electric style, namely rubbing a ruler through the hair. Then students write down the results of the experiment in the format provided by the teacher. Students discuss their findings in groups. When discussing groups, the teacher provides an assessment of student activities.

**Step 5** proving the data obtained is correct or not, the teacher provides opportunities for students to present the results of their experiments. Then the teacher displays a picture of a regional creation dance movement, namely The Umbrella Dance or Tari Payung. The teacher asks several questions, namely: (1) What properties are used when dancing the Umbrella Dance? (2) Under what circumstances can we use the umbrella? (3) Does the force have an effect when the umbrella is moved? (4) What force is applied to allow the umbrella to move? The teacher asks students to answer the question in turn. The teacher gave an example of an Umbrella Dance movement with a count. Then the teacher asks students to demonstrate dance moves in front of the class. The teacher assesses the students' dance movements.

**Step 6** draws conclusions, Students explain about the force, motion and electric force along with examples in everyday life.
In the final activity, the teacher and students make conclusions / summaries of learning outcomes during the day, ask and answer about the material that has been studied (to find out the results of the material achievement), assess the learning outcomes, the teacher provides an overview of the next day's lesson. The teacher invites all students to pray (to close the learning activity), and gives a follow-up in the form of homework, then the teacher closes the lesson.

The result of this research can be described as follows:

Table 1. The Average Value of Each Type of Student Learning Activities

<table>
<thead>
<tr>
<th>No.</th>
<th>Type of Activity</th>
<th>1st Cycle</th>
<th>2nd Cycle</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Visual activities</td>
<td>78</td>
<td>89</td>
<td>11%</td>
</tr>
<tr>
<td>2</td>
<td>Oral activities</td>
<td>62</td>
<td>78</td>
<td>16%</td>
</tr>
</tbody>
</table>

(Source: Primary Data of Research)

Visual activities. At the first cycle of meeting 1, visual activities have been carried out with a percentage of 78% and good qualifications. There are four students who still get the sufficient category. The four of them were seen only observing the teacher during the preliminary activities and watching the video presentation, while they did not appear to pay attention to their friends during group discussions and in response to the results of the discussion report. Most of the students did not appear to have the courage to express their opinions during the learning activities, both when asking questions and giving opinions during discussions.

Visual activities of students in learning activities are the important thing. The existence of good student visual activities in learning activities brings great value to learning (Waslina et al., 2019); (Trisno et al., 2019). Maximum visual learning activities will show that learning is going well and optimally, so that learning is of higher quality (Nelvianti et al., 2020); (Nelly et al., 2019); (Desyandri et al., 2019). Discovery learning model has advantages include stimulating student visual activity including to recall the subject matter which they have obtained before through what they have observed, provide motivation to students to become more active and increase curiosity know students by their observations, train students to learn to find concept through experiments, train students to convey orally a concept which they have observed, gives opportunities for students to think, search, find and explain examples of applying the concepts that have been learned.

Oral activities increased by 16% after the second cycle was held. This is because there are 12 out of 26 students who have shown an increase in speaking activities (oral activities) than before. Most of the students did not appear to have the courage to express their opinions during the learning activities, both when asking questions and giving opinions during discussions. In terms of students, there are several obstacles that are experienced by students. Among them, students seem still unfamiliar with learning activities using discovery learning models. In doing group work, most students still work individually. The involvement of other group members in discussions is still very low.

Oral activity (speaking) of learning is also the same, there are still many students who have not dared to show speaking activity and are reluctant to express their opinions. Students' oral activities are still weak because their speaking ability when submitting facts about the issues being discussed is still limited. This is because the stages of the discovery learning model are still unfamiliar to students because so far the teacher has never carried out this kind of learning stage. Teachers have not provided opportunities for students to ask the facts they got during the learning process. Supposedly, the teacher bridges the needs of students during
learning, because the discovery learning model actually provides the widest possible opportunity for students to satisfy their curiosity. This is consistent with the view which states that discovering the root of learning can be based on gradual movement, especially based on the idea of John Dewey, that is, teachers should conduct research and teaching through creativity (Abizar et al., 2018). With discovery learning, learning can be based on progressive movement, especially based on John Dewey’s belief that teachers should teach by teasing students’ natural instincts, in order to investigate and develop creativity through questions force (Putra et al., 2020); (Rahmadhani et al., 2020).

The classroom action research can not only increase learning activities, but also improve students' learning effects. It reduces the main lecture methods used by teachers and intersperses them in the discovery learning model. After conducting classroom action research through two cycles and four meetings, it can be seen that students' learning outcomes have been greatly improved, as shown below.

### Table 2. Average Value of Student Learning Outcomes

<table>
<thead>
<tr>
<th>No.</th>
<th>Learning Outcomes</th>
<th>Pre-Action (1st Cycle)</th>
<th>Post-Action (2nd Cycle)</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cognitive</td>
<td>62</td>
<td>82</td>
<td>20%</td>
</tr>
<tr>
<td>2.</td>
<td>Affective</td>
<td>70</td>
<td>84</td>
<td>14%</td>
</tr>
<tr>
<td>3.</td>
<td>Psychomotor</td>
<td>71</td>
<td>87</td>
<td>16%</td>
</tr>
</tbody>
</table>

(Source: Primary Data of Research)

Based on the results of observations and assessments carried out in two meetings in cycle I above, it was found that an increase in student learning outcomes in learning using the Discovery Learning model at the first and second meetings in cycle I. Looking at the average learning outcomes in cycle I, it is illustrated the fact that the use of the Discovery Learning model in learning cycle 1 the average acquisition of 62, meaning that from the criteria set the average is in the range of 50% - 75% so that the use of the Discovery Learning model in this cycle falls into sufficient criteria, still less than KKM. Therefore, the solution to problem solving carried out is to continue action research to cycle II by fixing the deficiencies that exist in cycle I.

Based on the results of the assessment of knowledge at the second cycle, an average of Indonesian lessons was 86, the highest score was 100 and the lowest score was 60, 25 students completed, the percentage of completeness was 96.2%, while 1 student did not complete, the percentage was 3.8%. The average score of 88 science subjects was the highest score of 100, the lowest was 60, 25 students who completed with a percentage of 96.2% completeness, 1 person did not complete with a percentage of 3.8%. The average of art is 87 with the highest score of 100 and the lowest score of 60, 24 students completed with a percentage of 92.3% completeness, while 2 students who did not complete were with a percentage of 7.7%. If the three subjects are averaged, namely: 82. The total of improvement is 20%. This indicates that the students' understanding of the theme of the area where I live in the sub-theme of being proud of my living area at the third meeting based on the grade average is included in good criteria.

In cycle II, it was found that the learning outcomes of the affective aspects of the 26 students as many as 24 students had achieved mastery learning, the remaining 2 students had not yet reached completeness. If averaged as a whole, then 24 of the 26 students or about 92.3% of students have achieved mastery learning and about 7.7% of students have not yet achieved completeness. The average classical learning outcomes for this affective aspect are in good criteria and are categorized as complete classically. In cycle II the psychomotor aspects of learning outcomes were obtained from 26 students, 23 students achieved mastery learning, and 3 students needed to be corrected because they only achieved 5-60% of their learning outcomes.
learning. If averaged as a whole, then 23 of the 26 students, about 88.5% of students achieved completeness. While the number of students who had not reached the minimum completeness criteria was only 3 people or 11.5% of the total number of students. This increase was seen in the increased attention of students to lessons, increased participation in groups, and the increased courage of students in expressing opinions. Affective assessment greatly determines the level of completeness and success of students in a lesson (Yeager et al., 2012); (Dahliyana, 2017). A student who does not have an interest in certain subjects will find it difficult to achieve maximum learning completeness. This returns to the teacher to be able to find methods that can stimulate students to learn. So, it can be concluded that this psychomotor aspect obtains good criteria in its implementation. Previous research conducted on discovery learning methods in different settings by different researchers and this study proved discovery learning to be a more effective teaching method for the selected topic compared to conventional teaching methods.

CONCLUSION

Through the discussion of this research, it can be seen that the use of the discovery learning model in the thematic integration of the fourth grade of Excellent Islamic Schools is very effective, because it can increase activities and thematic learning results, so that students become active and creative. The discovery learning model also invites students to participate in the development of new concepts useful in the daily life of learning, thereby making learning more meaningful. In the learning process, discovery learning model focused on students, so the knowledge conveyed is easier to understand and can be involved in daily life. This study provides findings to provide researchers with information that the use of the discovery learning model is consistent with government recommended curriculum, that is Kurikulum 2013.

REFERENCES


