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Peer Tutor Method to Improve Problem Posing Ability

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Abstract. This study was conducted to determine the description of learning with the peer tutor method implemented through situation-based learning. The urgency of this study is to find out the problem posing ability of elementary school students as an intellectual skill that students must possess to support future competition. From the existing problems, students are accustomed to receiving knowledge without posing the problems they find. The peer tutor method through SBL facilitates students in problem-posing ability, problem-solving, and independent learning. The peer tutor method makes it easier for teachers to provide structured guidance to facilitate students through discussions. This study employed a descriptive qualitative method involving fourth-grade students, in which the data were obtained using observation, interview, and documentation guidelines. The obtained data were reduced to be able to conclude. This study found that learning through the peer tutor method involves active student roles, facilitates students to construct their knowledge in a guided manner, creates meaningfulness in students in posing problems, leads to follow-up questions, and responses to the problems posed.

Keywords: Peer Tutor Method, Problem Posing, Elementary School Students, Situation-Based Learning

1. Introduction

The ability to propose problems from students is one of the things indicating students' ability to criticize a situation, which leads to from the development of students' critical thinking ability. In addition, the problem posing approach can help students develop confidence and love for learning. Problem solving and problem posing can help students to develop a more creative approach (Afiani & Putra, 2017; Bonotto & Santo, 2015; Arikan & Unnal, 2015).

One key aspect of students' effective critical thinking skills is their capacity to pose questions and articulate ideas rooted in the problems they encounter.. This is reinforced by Shanti, Sholihah and Abdullah (2018) that a critical thinker is able to identify important points in a problem, focused and able to observe carefully, tolerant of new points of view, willing to recognize the advantages of other people's points of view, and has analytical skills that can be used in various situations. Then Grundmeier's research (2002) suggests that students' ability to pose problems in open-ended situations can affect their problem solving ability. This implies the need to incorporate more problem posing into the classroom will support students' competencies. Following up on some of the points above, one of the novelties is situation-based learning. Some things around us can be a problem that can later be investigated and solved.

The series serves as a developmental phase for honing problem-posing skills through situational learning. It adopts a Situation-Based Learning (SBL) model, wherein teachers construct learning scenarios designed to prompt questions from students. Students, in turn, engage in solving problems they have constructed themselves within these situations. Consequently, the SBL learning model fosters students' ability to pose problems, subsequently contributing to the enhancement of their critical thinking skills.SBL consists of four stages of the learning process, namely (1) creating situations, (2) posing problems, (3) solving problems, and (4) applying the concept.

One of the factors that influence the ability to ask questions is external ability. Teachers play a role in creating learning for students. Things that influence students' questioning ability and often occur come from teachers and the learning atmosphere (Rosli & Carparo, 2014; Bouhnik

& Deshen, 2014). Considering this, learning must provide a continuous stimulus in improving students' problem posing ability.

Following up on some of the points above, one of the novelties is learning that requires students to be able to express some of the ideas and curiosity that exist in themselves. Thus, learning in the classroom needs to be designed to bring out the ability of discussion within the scope of the students themselves. This can be done with the peer tutor method.

Peer tutors provide a good opportunity for students who already have good understanding skills to be able to share with other friends. It can provide a closer space to ask questions and solve problems together, and a kind of well-organized collaborative learning approach. Students have a great opportunity to practice more and learn better during the learning process because they can get personalized instruction, guidance and feedback (Miller, Miller, Armentrout, & Flannagan, 1995; Topping, 1988; in Chun Chu, 2017).

Peer tutoring is a structured and collaborative learning method that encourages children of the same age to learn from each other (Tsuei, 2017). Peer tutoring assigns a student with a good grasp of the concept to teach his/her peers who do not understand as they work together. The role of peer tutors is to guide and equalize student understanding in order to achieve predetermined learning objectives.

Learning with the peer tutor method can lead to positive relationships among learners and better learning spirit. The role of tutors to teach knowledge to their peers is a means to continue practicing in understanding the new knowledge they have. In this case, the tutor will be motivated to learn something maximally, and then both the tutor and the student being tutored will get the benefits. The tutor will be more skillful in understanding and teaching experience, and the student beingtutored can improve abilities in terms of listening, understanding and solving problems

Based on the background description above, is the formulated research question is: how the problem posing ability of students in learning through the peer tutor method?

1.1. Problem Statement

Problem posing abilities are closely related to critical thinking skills. Many learning methods implemented in elementary schools have not facilitated students to learn actively and train their problem posing skills. Meanwhile, the future learning framework expects students to have higher order thinking skills. The peer tutor method applied to situation-based learning provides several learning stages that will encourage students to develop their skills both in thinking and analyzing.

1.2. Related Research

The following describes some studies that are relevant to the topic of research to be carried out. Andinny, Lestari & Mailizar (2019) with the research title "The Effect of Situation Based Learning Model on Mathematical Problem Solving Ability and Learning Independence" did anan experimental study with the results of the study revealing that the SBL model can improve mathematical problem solving skills, because the problems are made by students themselves based on the situation given by the teacher, so they feel more interested in solving these problems, so that students' awareness of the emergence of mathematical problems will increase and be motivated to take part in learning.

Then the research of Sarini, Sudana and Riastini (2018) with the research title "Science Learning Outcomes of Grade 4 Elementary School in Gugus 2 Santalia Through Peer Tutors" a study using the experimental method obtained the results of peer tutor learning provides an opportunity for students to form a study group. This trains students to work together in solving a problem in learning, so that students are trained to express their own ideas or opinions. In addition to this, students are also more enthusiastic in participating in the learning process. In addition, Munthe and Naibaho's research (2019) with the research title "Benefits and Constraints of Peer Tutor Implementation for Grade 4 Students of Lentera Harapan Mamit Elementary School" found that the peer tutor learning method is able to bring students to a comfortable learning process, because students are able to express their opinions or difficulties without any hesitation or

embarrassment. The peer tutor method can also teach students to be able to share and help each other with friends who are still having difficulty understanding the subject matter. This makes the delivery of material more efficient to improve students' ability to understand short division material.

The present study is titled "Peer Tutor Method on Problem Posing Ability." Its uniqueness lies in the application, focusing on specialized content within the realm of science subjects. Moreover, research on the Situation-Based Learning (SBL) model, particularly concerning problem-posing abilities— the core idea being developed in this research—is relatively scarce.

1.3. Research Objectives

The purpose of this article is to determine the effect of peer tutor model applied in situation-based learning on elementary school students' problem posing ability.

2. Theoretical Framework

2.1. Peer Tutors

Interaction is significant in the learning process because as it forces students to explain, detail, defend, and express their opinions. As Piaget's theory states that knowledge does not come from the social environment, but social interaction is important as a stimulus for internal cognitive conflict in individuals (Nurhidayati, 2017; Suhendi, Purwarno & Chairani, 2021). Group learning is a learning model that allows students to interact and work together to achieve specific goals or complete a task. The positive impact that students will get through group learning that tutees will gain knowledge from tutors and tutors can be motivated to learn and understand the material, increasing their attention to the development of their friends (Topping, in Galbraith & Winterbottom, 2011).

Peer tutoring is a structured and collaborative approach that encourages children to learn from each other with their peers. This form of learning can train students to apply certain strategies designed based on their discoveries to improve their understanding of learning materials (Tsuei, 2017; Stigmar, 2016). When asking peers and responding to questions with peers, students can monitor their understanding, generate inferences, elaborate on existing knowledge, and correct misconceptions (Goodlad and Hirst in Baroon & Foot, 2006). Peer tutoring is a teaching system where learners help and learn from each other (Rees, 2016). This method is a cooperative approach in which there are students who play the role of teachers (usually students who are smarter than other students) and other students play the role of learners. Students in the teaching role help other students in the learner role within the same grade level to develop better skills in listening, concentrating, and understanding what is being learned in a meaningful way.

Having peers as mentors in learning can be used as an alternative to help students who have difficulty when guided by their teachers. The essence of the peer tutor learning method is learning that is implemented by dividing the class into small groups, and the learning resource is not only the teacher but also peers who are good and fast in mastering a certain material. In this learning, students who become tutors should be children who have a full complement of tasks and thoughts that are not only better prepared to do the task themselves, but are better prepared to manage the demands of the task when teaching others (Baroon & Foot, 2006).

A tutor should have the following criteria: 1) has an academic ability above the average student in the class, 2) is able to cooperate with fellow students, (3) has high motivation to achieve good academic performance, (4) has an attitude of tolerance and tolerance with others, (5) has high motivation to make his discussion group the best, (6) is humble, brave, and responsible, and (7) likes to help others who have difficulties. The tutor or group leader has the following duties and responsibilities: (1) provides tutorials to members on the teaching material being studied, (2) coordinates the discussion process so that it takes place creatively and dynamically, and (3) conveys problems to the supervising teacher if there is teaching material that has not been mastered.

The peer tutor approach offers the benefit of equipping students with problem-solving skills, empowering them to navigate challenges independently and act as self-guides. Moreover, as the tutors are fellow classmates, students feel more at ease and willing to ask questions about any aspects they find unclear during the teaching and learning process, eliminating potential embarrassment or hesitation.Then, Liew et al. (2015) suggests several advantages of peer tutors, among others:

a. Sometimes, students are more motivated and comfortable to discuss the subject matter for a long time.
b. For tutors, tutoring work can improve their understanding of concepts.
c. For tutors, it is an opportunity to practice skills in guiding and explaining to friends with good language and delivery.
d. Strengthening students' character to be responsible, respectful, and be a good communicator.

2.2. Peer Tutor in Situation-Based Learning

Peer tutoring begins with the selection of material by the teacher allowing tutor students to learn independently. The teacher must prepare enough time for students to study the material both in class and outside the classroom. Only after the students have studied the material independently, each group presents the sub-material according to the assignment given, but the teacher still acts as the main resource person who provides conclusions and clarifications if there is student understanding that needs to be clarified.

Learning with the help of peer tutors presented with situation-based learning to facilitate students in understanding the concept of material learned by directing students to carry out tutoring so that a student can build knowledge with the help of other students who have abilities above the student needing more attention. This learning begins with a tutor selection process based on science final exam scores. Students with final exam scores above 80 become tutors. Next, the teacher provides materials that must be understood by the tutor candidates.

Before class begins, the teacher assesses tutor candidates' understanding, selecting those with a clear grasp. The lesson starts with the teacher using media to introduce the material, making it more accessible for students. The study group is diverse, consisting of both men and women with varying abilities. The teacher outlines the peer tutoring process, where tutors guide problem posing and solving. During this phase, tutees can ask questions and seek help from their selected tutors without hesitation. The teacher encourages knowledgeable tutors to share with their peers. Students then present problems inspired by the teacher's content, followed by group discussions to choose specific issues for resolution. Together, the class decides which problems to address. Students apply concepts, explaining to peers, asking questions, and providing responses. The lesson concludes with students and the teacher posing questions related to the material, followed by joint conclusions and reflections on the conducted activities.

2.3. Problem Posing Ability

As education advances, there is a growing need for students to enhance their intellectual skills. One crucial skill that students should develop early on is the ability to pose problems.. Problem posing ability can be defined as the activity of generating or reformulating given problems, tasks that appear on the spectrum between commonly found problems and complex problems, and metacognitive behavior in the process of posing problems (Baumanns & Rott, 2020; 2021).

Problem posing is the ability of students in terms of detailing their own questions or breaking down a problem into simple questions that refer to solving the problem. In teaching and learning activities in the classroom, the teacher can cause problems among students with each other and the environment around them. Problem posing can be indicated in the form of dialog that comes from their instructors to then ask follow-up questions, diverse learning experiences that have been found before and from their peers in the same group learning to pose diverse problems (Hill, Bass & Stewartz, 2019). Thus, it can be concluded that problem posing is the ability that students have in terms of asking problems, detailing questions to solve

these problems with the mindset they develop. Students' problem-posing involves making them the focus of learning, emphasizing their problem-solving potential, and introducing challenges in each lesson. This approach allows students not only to create new problems from a given situation but also to restate existing problems and generalize solutions (Guvercin, Cilavdaroglu & Savas, 2014).

2.4. Benefits of Problem Posing Ability

Problem posing can train students' ability to propose problem activities into teaching so that students have some experience recognizing and formulating their own problems, proposing problems that come from other problems that they have solved before (Silber & Cai, 2016; Milinković, 2015; Nuha, Waluya & Junaedi, 2018). Then problem posing has the purpose and benefit of encouraging students to read more material/information related to the lesson. Problem posing is an important companion of problem solving, encourages flexible student thinking, improves problem solving skills, and sharpens students' understanding of learning materials (Baumanss & Rott, 2020).

In line with this, problem posing ability is important to possess by students as it has many impacts on the learning experience such strengthen students' understanding of the subject matter, leveling up from information acquisition into its application, achieving deeper levels of sustained thinking and critical reflection, and easily identifying connections between specialized content, their own learning, and skills needed in their daily lives (Nardone & Lee, 2010; Akben, 2020; Leavy & Hourigan, 2020).

2.5. Problem Posing Ability Indicator

Problem posing ability needs to be measured by several indicators that can be seen in learning activities. The indicators of problem posing ability aim to see the development of students in everything they do. Allmond and Makar (in Watson & English, 2017) put forward eight indicators related to focusing on (1) developing investigative questions, (2) imagining related data, (3) refining questions, (4) considering the purpose of solutions to their questions (5) using provisional conjectures before and after discussion, (6) categorizing the questions asked in several categories with coverage of irrelevant, closed, and inquiry questions, (7) finding significant positive differences for those who have experienced the lesson compared to other classes that have not.

3. Method

3.1. Research Design

The research conducted used qualitative methods. Qualitative research according to Creswell (2015) is research that intends to understand the phenomenon of what is experienced by the research subject such as behavior, perception, motivation, action, etc. by describing various natural methods. This study focuses on the implementation of peer tutor methods through SBL in the context of elementary school students.

In this study, there are activities to observe teacher and student activities during learning with peer tutor method through SBL, namely: (1) describing and recording some changes in teaching activities, (2)analyzing some factors that arise in learning both perceived by teachers and students after learning with peer tutor method, and (3) interpreting the conditions during the learning process.

3.2. Participant

The participants of this study are fourth grade elementary school students, since they are observed to be in the concrete operational stage. Fourth-grade students demonstrate logical and flexible thinking in organizing concrete objects. They also excel in socializing with their peers during learning interactions. The implementation involves dividing students into small groups, with a focus on diverse abilities. The selection of research subjects is based on evaluating the diversity of students' academic abilities, crucial for effective interaction in the peer tutor method. The detailed data of the participants are as follows.

Table 1. Participant Data

Gender		Age		Study participation	
Male	Female	9 years old	10 years old	Active	Passive
11	9	5	15	10	10

3.3. Data Collection

3.3.1. Observation Guidelines

In this study, the learning implementation was observed using observation sheet, which contains descriptors for teacher activities and student activity observation sheets. The student activity observation sheet was used to describe the level of student activity during the learning process. The use of this observation is to get data about the peer tutor method, measuring problem posing skills and student activities that improve their problem posing skills. After that, these date were then analyzed descriptively find out the activities of teachers and students as well as the development of abilities from students or various other findings.

3.3.2. Interview

Interviews were conducted to find out the implementation of the peer tutor method in improving students' problem posing skills seen from the perspective of tutor and tutee. The interview results that have been obtained, then analyzed and interpreted to draw a conclusion.

3.3.3. Documentation

All documentation used during the implementation of the peer tutor method and the SBL learning model was gathered and processed into report-ready data, which comprise learning materials, teacher observation notes, student activity records, problem-posing observations, and supplementary materials like photographs documenting various stages of the learning process.

3.4. Data Analysis

In this study, observations, interviews, and documentation were utilize to collect data. The findings from these three instruments were thoroughly analyzed qualitatively to provide a comprehensive understanding. To obtain students' reactions to the peer tutor method and the SBL learning model, interviews were conducted. Observation guidelines were utilized to assess learning activities. The obtained data from observations, interviews, and documentation were organized and categorized based on the similarities in the aspects studied.

3.5. Validity and Reliability

Validity is the most important part of an evaluation, which were done using the following techniques:

3.5.1. Member Check

Member check is a form of data validation carried out by reviewing or re-examining the information obtained during observations and interviews. Member check is carried out to put forward the results of temporary acquisition to obtain responses, opinions from both teachers and students on the implementation of learning so that accurate data are obtained. The aim is to find out whether the data obtained are in accordance with what the data source provides.

3.5.2. Triangulation

Triangulation is used to check the truth of hypotheses, constructs, or analyses that are compared with the results of others. This study uses various types of data sources and evidence from different situations, namely: a) people, data collected from teachers and fourth grade students; b) time, data collected at different times in three meetings; c) space, data collected from fourth grade students in one of elementary school as a research site.

3.5.3. Expert Opinion

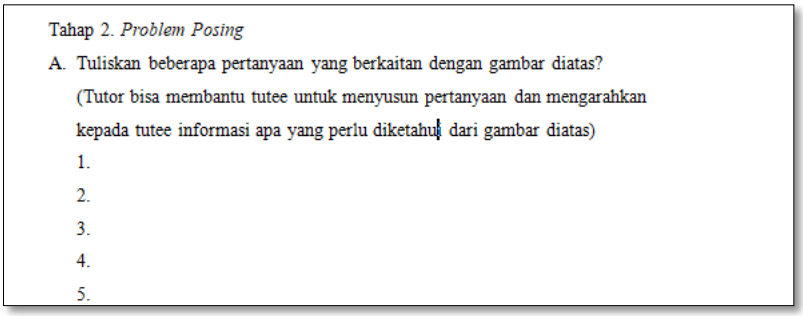
Expert opinion is used to perform data validation by obtaining direction and input from the experts so the findings can be accounted for. Experts examine all stages of research and provide direction on the research problems raised.

4. Findings

This section presents the findings on the implementation of peer tutor method in Situation-Based Learning carried out to fourth grader students in an elementary school, which are arranged based on the instruments used.

Learning through peer tutor method to foster students' problem posing ability is certainly supported by tutors who are competent in guiding their friends. During the implementation, tutors must be able to play a good role in guiding their friends. Based on the results obtained, peer tutor method has a good impact on students' problem posing skills. This can be seen from the first, second, and third meetings which showed some changes in students' abilities such as in the aspects of raising questions, temporary conjectures, asking follow-up questions and responding to their friends questions. Then, in line with this, the tutors also became more skillful in positioning themselves in the study group. They became more sensitive to the situation presented in the learning and were able to direct the tutee to dare to ask questions and arrange questions in a good order. In addition, the tutors could also provide some information related to the situation presented so that it is more encouraging to other friends.

In the problem posing and problem solving stage, tutors and tutees could interact more and teachers provide many opportunities for students to develop their potential. Then, the problem posing ability was facilitated by the worksheet at stage A. Students were free to express their curiosity. The form of worksheets accompanied by work instructions to propose problems based on the situation presented is as follows.



Tahap 2. *Problem Posing*

A. Tuliskan beberapa pertanyaan yang berkaitan dengan gambar diatas?
(Tutor bisa membantu tutee untuk menyusun pertanyaan dan mengarahkan kepada tutee informasi apa yang perlu diketahui dari gambar diatas)

1.
2.
3.
4.
5.

Figure 1. Student Worksheet Part A

The provided worksheet has a limited number, but students are encouraged to ask questions freely during instructions. The forms for writing questions is given as in figure 1. To enhance their questioning ability, students are given ample time to carefully observe the presented situation. They can then identify potential problems to ask about based on the situation. Following the teacher's guidance, students formulate questions at various levels. The outcomes of this student activity were observed in the first meeting.

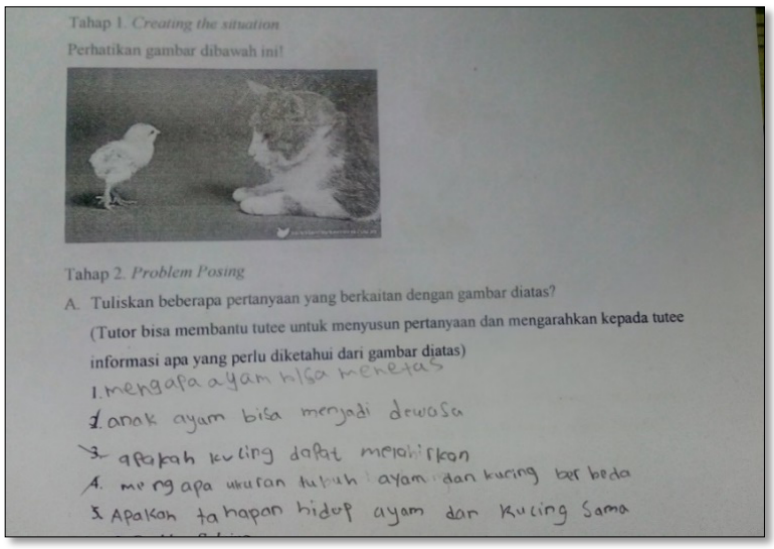


Figure 2. First Meeting Worksheet

In this first meeting, it can be seen that students have not been able to fully understand the situation presented by the teacher, Can be seen in figure 2 where students could only express some basic questions related to the situation. In addition, only a few students were competent to formulate questions. Then in compiling the questions, the sentences were not coherent. As in question number 2, there students wrote 'can chicks become adults?'. In this sentence there is no question word used and if at a glance it can be like an information sentence. Then a clarification was made by having a dialog.

Students' answers in clarifying their sentences. In this first meeting, students have not been able to come up with questions with various levels of difficulty. This is because students still did not have the confidence to pose problems. Then, in the previous learning, they still could not pose problems freely.

When students compose questions on the worksheet, they were allowed to raise their hands to ask questions before writing them on the worksheet. After having coherent questions, the teacher reassured whether the students had felt sufficient in asking their questions or whether there was still something they wanted to ask again. When they have finished composing their questions, the teacher provided a stimulus again so that students' curiosity could increase.

From this, students began to try to ask their friends, which led to further discussion. The tutees can be guided by tutors, and they can work together to jointly analyze what exactly is the subject of the question and what should be written in the answer.

Figure 3. Student Discussion

Based on figure 3 In this stage, several findings occurred according to the results of interviews, During learning, the students usually only listened and wrote. Even

During group work, students engage in separate discussions to encourage individual questioning and interaction. They are accustomed to working collaboratively without exchanging information with their peers. The worksheets provided are not researcher-designed packages; instead, they are unified worksheets containing questions that students must answer independently, fostering individual understanding.

Then, in this first meeting at the reflection stage students were allowed to be able to respond to further questions which can later be answered by the teacher or others. However, at that stage, students asked questions outside the concepts discussed.

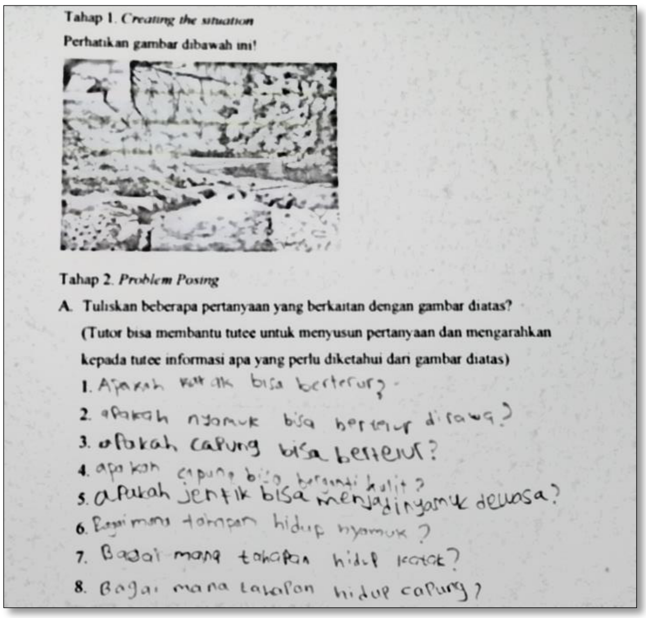
In this case, there could be several possibilities, perhaps students were happy when given the opportunity to ask again by the teacher or indeed students may not understand what was meant by follow-up questions by the teacher. This happened during the reflection process at the end.

In responding to this, the teacher still appreciated students for their courage by giving applause with other students. The teacher answered briefly in response to this question.

Before the teacher answered the question, the teacher invited other students if anyone wants to respond to their friend's question. This was done to make learning more active and students got more answers so that when making decisions from the learning material studied, students could understand more and their understanding deepened.

In the second meeting, students begun to understand what they can do in each stage of learning. The problem posing stage, as the core of SBL learning, is a very important stage. Before students can write questions and ask questions, teachers provided stimulus to students so that they could formulate better questions.

In the second meeting, students showed changes in their problem posing skills, as they started to organize and ask more questions than the previous meeting. In addition, the questions raised by students were also more diverse ranging from easy, medium and difficult levels, with a more systematic questions. Tutors were also more eager to always assist their friends. The tutors maximized their role by keep checking on their friends and providing more discussion space with their friends so that tutees were not feeling awkward to raise questions. This can also foster students' confidence in asking and responding.



Tahap 1. *Creating the situation*

Perhatikan gambar dibawah ini!

Tahap 2. *Problem Posing*

A. Tuliskan beberapa pertanyaan yang berkaitan dengan gambar diatas?
(Tutor bisa membantu tutee untuk menyusun pertanyaan dan mengarahkan kepada tutee informasi apa yang perlu diketahui dari gambar diatas)

1. Apakah katak bisa bertelur?
2. apakah nyamuk bisa bertelur dirawa?
3. apakah capung bisa bertelur?
4. apakah capung bisa berganti kulit?
5. apakah jentik bisa menjadi nyamuk dewasa?
6. Bagaimana tahapan hidup nyamuk?
7. Bagai mana tahapan hidup katak?
8. Bagai mana tahapan hidup capung?

Figure 4. Second Meeting Worksheet

In this second meeting, students were able to formulate 9 questions based on the situation presented, where the students used questions forms. This can be seen from figure 4.

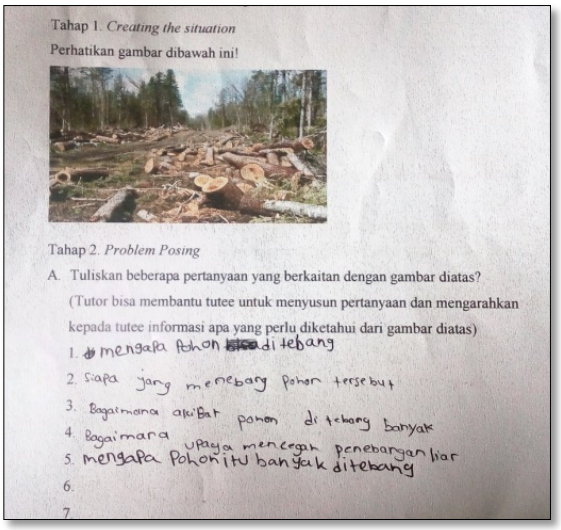
Simple questions typically start with the word 'what,' while more intricate questions are characterized by the use of 'how.' This indicates that students comprehend the teacher's instructions, and the teaching stages have successfully prompted diverse problem proposals. Students tend to use the word 'what' when seeking a "yes/no" response, whereas they employ 'how' to request a detailed explanation for the problems they pose.

Then in this second meeting there were students who directly expressed temporary conjectures based on the results of their knowledge but the students wanted to go deeper into what they already knew.

After that, students wrote these things in their notebooks as the first keywords they get so that they can discuss with their group friends later. In addition, when the presumption already exists, students can continue the stage to understand the material well. Because students already have basic concepts that will later be connected to new concepts that will be obtained for broader knowledge.

In this second meeting, students in the reflection stage when asking follow-up questions were more focused. The concepts asked as follow-up questions to deepen were better than the previous meeting. In addition, other students are also able to try to respond to questions from their friends so that learning is more interactive and learning time in this stage also lasts long enough to exceed the predetermined time.

In the third meeting, it was seen that the questions raised by students were increasingly varied. Then students were more structured in making questions. Starting from what is visible to the naked eye and some follow-up questions that are more complex than the situation presented.


Tahap 1. *Creating the situation*

Perhatikan gambar dibawah ini!

Tahap 2. *Problem Posing*

A. Tuliskan beberapa pertanyaan yang berkaitan dengan gambar diatas?

(Tutor bisa membantu tutee untuk menyusun pertanyaan dan mengarahkan kepada tutee informasi apa yang perlu diketahui dari gambar diatas)

1. mengapa pohon ~~bisa~~ di tebang
2. siapa yang menebang pohon tersebut
3. Bagaimana akibat pohon di tebang banyak
4. Bagaimana upaya mencegah penebangan liar
5. mengapa pohon itu banyak ditebang
6.
7.

Figure 5. Third Meeting Worksheet

Can be analyzed based on figure 5 In the third meeting, the students could raise more diverse questions based on the existing situation. The question words used can be seen that in this third meeting students can use the words 'why, who, and how'. This means that students have understood the indicators of problem posing that are expected, seen from the ability of students to ask questions.

In the third meeting, students were able to meet the expected indicators. However, in this last meeting students came up with various keywords in several questions until the tutor asked the teacher. Can be seen in the observation results table 3.

Thus, students got more material learned and learning can be more meaningful. Asking follow-up questions and responding to friends' questions were done at the problem solving stage after

students have chosen the questions to be followed up. In this stage, before writing the answers in the problem solving stage, students could make conclusions from some of their friends' questions and their friends' responses. This is also supported by the suitability of the images presented with the material discussed. This is also supported based on the interview results in table 2.

Table 2. Summary of Student Interview Aspects of Problem Posing Ability

Question	Answer Summary
Can you better grasp the questions when learning starts with observing a picture and asking questions with a friend?	Yes, because the learning material is also in accordance with the picture at the beginning.

Table 3. Summary of Observation Results of Students' Problem Posing Ability

No	Aspects observed	Assessment	Description
1.	Develop questions regarding the material		
a.	Ask questions that are appropriate to the situation	Very good	Contextualized situations gave students good creativity in critical thinking
b.	Ask questions with low, medium to difficult levels	Very good	The diverse levels of questions were analyzed from the varied question words. The diverse questioning level was achieved in three meetings.
2.	Break down the Problem		
a.	Make a tentative guess for the answer to the question	Very good	Provisional assumptions were seen at the beginning of student discussions before finding conclusions
b.	Organize several stages or keywords to make it easier to understand the concepts discussed	Very good	In conceptualizing, tutors played a very important role in facilitating the understanding of their friends' concepts.
3.	State the problem in another form		
a.	Ask follow-up questions	Very good	In the first meeting, there were follow-up questions that did not match the concept.
b.	Respond to friends' questions	Very good	Responding to friends' questions was mostly done by the tutor and was the result of understanding from the discussion.

5. Discussion

Learning through the peer tutor method gives positive results on students' problem posing ability. Problem posing ability is one of the abilities that must be trained since elementary school level to support their competitive ability in the future. In the learning process, students must master the material in detail and must engage in higher-order thinking activities to learn the learning material in a way that allows them to use the new knowledge to be applied outside the classroom (Mayer 2017; Wiana, Barliana, Riyanto, 2018; Ichsan, et al., 2019). Problem-solving is one of the important high-level active learning tasks for students to develop, and it is a term that denotes the relationship between higher-order questioning skills and situation-based learning (Nardone & Lee, 2010; Tan Sisman, 2010).

After several meetings, there was significant results from students' habits in learning and the learning atmosphere became more interactive. The sense of interest possessed by students is important during the learning process. Children are able to propose broader and more complex problems based on observations and results of analyzing situations rather than reading questions to be answered. In the learning process, some of the stimuli given to students are verbal or pictorial situations (English, 1998; Nicolaou & Xistouri, 2011). Students who were reluctant to ask questions and hesitant to express what they really wanted to find out, then they were afraid to try to respond to friends' questions slowly assisted by tutors became willing to try. It can be seen from the change in the category of assessment made by the observer. Tutors' questioning skills can lead to deep learning and propose that more questions are asked and responded to if they are to fully understand how questions support learning (Roscoe and Chi, 2007; Govender & Alcock, 2018).

Fostering students' problem posing ability begins with finding information that is guided by the tutor. The teacher also provides a stimulus by dialoguing with students about what they have gotten then asking about the presumptions they can put forward and inviting students to look for the correct answer to the problem they found. With this, students are expected to raise many questions and grow more curious. Problem-solving provides students with a unique opportunity to improve their problem-solving skills while developing their academic skills to face and solve the problems they find and for further learning (Kopparla, et al., 2018; Kozakli Ulger et al., 2022; Ellerton, 2015).

The activity of asking questions develops students' sensitivity to problems. In fostering student sensitivity, learning is packaged with situations where the problem is also relevant to the child's environment and involves student efforts to be well understood. After that, students try to be able to specify what is the problem they will solve with their friends and make some keywords to find out the main content of the problem. After that, students discuss with each other and put forward their arguments based on their knowledge. Until students understand and can be able to respond to follow-up questions. Finally, the learning is more interactive.

Active student participation is crucial for effective learning. Both individual and group-based learning activities contribute to students' future success. Group learning refers to a teaching method in which students work together in groups to help each other learn academic content (Slavin, 2014, Tran et al., 2019; Goodyear, 2017). Its development in fostering student activeness is developed through direct experience intrinsic habits of mind and learn to explore, question, conjecture, model, generalize, and communicate systematically (White & Sullivan, 2017; Licorish et al., 2018; Cheng, 2011). Based on field notes and observations of student activities, SBL learning activities led students to actively interact with their group mates, different group mates, teachers, and teaching media.

In peer tutor method, students conduct the learning process in groups. Group formation is done so that students actively cooperate and discuss with each other. By learning in groups, passive students become more active and there is closeness between students. Based on field notes and observations of student activities, it can be seen that during the four meetings, there has been a positive increase in the aspects of cooperation and discussion in groups.

6. Conclusions

Learning through the peer tutor method provides good changes to students' problem posing skills. This is due to systematically designed learning that involves active student roles, and facilitates students to construct their knowledge in a guided manner, so as to create meaning in students in posing problems, asking follow-up questions and responding to the problems posed. Then, the learning that is carried out is designed so that students can construct their knowledge, can ask questions and have a good understanding of the material studied. Tutors also play a maximum role in helping their friends to understand the material well. The implementation of learning through the peer tutor method has a positive response from students. In improving and developing students' problem posing ability by learning through the peer tutor method, it must be accompanied by optimal teacher competence in preparing the learning stages. In addition, integrated material development is needed so that students are able to understand continuously.

Limitations

This study was limited to the formal education environment and was conducted with 20 fourth grade students in elementary schools located in Sumedang Regency, West Java, Indonesia

Recommendation

Based on the findings, conclusions and implications, several recommendations are proposed, namely as follows.

1) For education practitioners or teaching staff
   a. The peer tutor method in learning can encourage students to get used to discussions and give arguments to each other so that students' understanding becomes better because all their senses work not only as passive listeners.
   b. In training students' problem posing skills, teachers must pay attention to the appropriate time and stages to provide stimulus to students. Where students are invited interactively requires appropriate learning activities.
2) For other researchers
   a. In conducting SBL learning activities through the peer tutor method, it is necessary to make some improvements, both in planning, implementation, and in assessing learning outcomes in order to obtain more optimal and appropriate results. This study can continue to be developed for example with R&D research methods, case studies and so on.
   b. In carrying out related research, develop valid instruments and consult with experts. The shortcomings in this study can be used as material for reflection or reference for future research.

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Conflict of interest

There are no conflicts of interest related to this study and the contents of this article.

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