**Research Article**

# Creative Thinking Ability of Elementary School Students Based on Learning Models

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**Abstract.**
This research was conducted to determine the improvement of students low-creative thinking skills with the help of conventional learning models. Especially in high school students in elementary school. Considering that creative thinking skills are the main thing in 21st, students need to develop their creative thinking skills. In the learning process, a teacher can determine the appropriate learning model according to the learning objectives. This research method uses a qualitative type of literature review. The low-creative thinking skills of students requires a teacher to determine the right learning model so that students get a positive impact. The purpose of this research is to see the effect of the learning model on creative thinking skills; therefore, it is necessary to test the students to determine what learning models can support the mathematical creative thinking skills of elementary school students. Learning models used to support mathematical creative thinking skills include discovery learning, project-based learning, picture to picture, and mind mapping. Moreover, there seems to be an influence of these learning models on the creative thinking skills of the elementary school students. Although there are shortcomings in each learning model, efforts can still be made to maximize each learning model.

**Keywords:** creative thinking, learning models

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## 1. INTRODUCTION

In the world of education, creative thinking is needed in dealing with a rapidly developing era, but there has been no special effort in education to develop this creativity [1]. Creativity, a person needs to prepare his thoughts through daily activities to produce creative ideas as a knowledge acquisition phase [2]. When involved in creativity, one's thoughts will provide an understanding and an action plan, which will then become an alternative solution [3].

Based on research [4] that in the 21st century skills every individual must have the ability to solve problems especially in the digital era like today. Every individual should be able to come up with creative ideas to survive in the midst of the rapid flow of information and changing times. This statement is also in line with research [5] which states that creative thinking skills are needed to overcome global problems and the

development of science in the future. Creative thinking begins with generating ideas and associations, then followed by exploration through evaluation and testing [6]

Education in the 21st century seeks to produce superior generations who are ready and able to follow the dynamics of time. In line with that, education is strived to create an advanced generation that has a more diverse range of creative and competent professional minds than its predecessors [7]. Therefore, in the context of the 21st century, the key is learning and innovation skills which include creative thinking skills and problem solving skills, communication and collaboration skills [8].

Universities and schools around the world have invested a great deal of effort in preparing their students with the skills demanded by 21st century organizations[9]. This statement is also supported by [10] which states that there is a century of knowledge, namely the 21st century requires high quality human resources who have expertise, namely being able to work together, think high-level, creative, skilled, understand various cultures, communication skills, and able to learn throughout life

## 2. METHOD

This study uses qualitative research, with a type of literature review. This technique is used to determine the effect of learning models on the creative thinking abilities of elementary school students. The literature review method is carried out by collecting journals from various sources, both from national journals and international journals.

## 3. RESULT AND DISCUSSION

Elementary school is a place where students begin to understand their potential and adapt to the environment. Elementary education plays an important role in the process of developing children to build themselves [11]. Several studies describe the creative thinking skills of elementary school (SD) students using several learning models such as discovery learning, creative problem solving, project based learning, picture to picture, and mind mapping. Each learning model used has its own advantages and disadvantages, but for the purpose of creative thinking skills of elementary school students, it is still carried out well. Students' creative thinking skills need to be improved, because creative thinking is one of the important goals of education [12].

In research [13] used the subject of fifth grade elementary school students to apply a mind mapping learning model with the aim of increasing creative thinking. There is an increase in the creative thinking skills of fifth grade students by applying the

Mind Mapping learning model. Learning becomes active and not monotonous. This can trigger students to be enthusiastic and enthusiastic in participating in learning. Students become active and can easily express their ideas. Students can solve problems with ideas that they develop themselves. This is evidenced by an increase in the results of cycle I and cycle II.

Improving the ability to think creatively using the mind mapping learning model also occurs in research [14] this can be seen from the results of cycle I and cycle II. Based on several studies using mind mapping as a learning model, it can be concluded that the mind mapping learning model is effectively used to support elementary students' creative thinking abilities. Although there are still some deficiencies in this learning model, such as students who do not fully learn. This is because mind mapping contains short phrases, so not all students can really understand what is being done.

In research [15] the Picture and Picture learning model can have an impact on improving students' creative thinking skills in elementary schools, because the use of learning models makes variations in class so that students are more enthusiastic about learning. This is evidenced by the results of the pre-test and post-test carried out in class IV SD students.

The Picture and Picture learning model is one of the many learning models that use pictures as a medium which can be obtained from books, magazines, the internet, and photos in accordance with the material and learning objectives [15]. The advantages of the picture to picture learning model are: 1 ) Students more easily master the material because the teacher displays pictures based on the material being taught. 2) Increase students' thinking power because the teacher asks students to analyze the existing pictures. Learning is more memorable because students are directly involved [16].

The results of research regarding the influence of the picture to picture learning model on creative thinking skills are also in accordance with research [17]. Based on several studies using picture to picture as a learning model, it can be concluded that the picture to picture learning model is effectively used to support elementary students' creative thinking abilities. However, there are still drawbacks to this learning model, namely it takes a lot of time. To overcome these deficiencies, teachers need to plan lessons and calculate the best possible time so that they run effectively.

In research [18] creative thinking is one of the skills that must be mastered by students in facing the challenges of the 21st century. Project based learning is one of the appropriate and innovative learning in developing 4C skills in 21st century education. This is because with project-based learning, students focus on complex

tasks, challenging problems, which involve students in designing, solving problems, making decisions, or conducting investigations.

Learning outcomes using project-based learning are also in line with research [19] which states that learning using project-based learning models helps students improve their creative thinking abilities. in the process of making the project should be further improved.

The learning outcomes for elementary students using the project based learning model are better than using other learning models, this indicates that this learning model is effective to use [20]. Learning using project-based learning for elementary school students is a good idea, because project-based learning students will unconsciously increase the level of student creativity. Apart from being creative, in this learning model students are also required to learn concepts and then solve problems in projects, thereby encouraging the development of 21st century skills.

Based on research [21] discovery learning model learning is stated to be effective in learning, as evidenced by the ability to think creatively students complete individually and achieve classical mastery and there is a significant influence between the character of curiosity and communication skills on students' creative thinking abilities. This is in line with research [22] that with the application of the discovery learning learning model, students can easily digest learning topics so that students are able to develop the material received and develop new creative and innovative ideas. The positive impact of using the discovery learning model also occurs in research [23] students feel happy and enthusiastic when learning is done using the discovery learning approach.

## 4. CONCLUSION

From several studies that have applied discovery learning, project based learning, picture to picture, and mind mapping learning models, there is an influence on the creative thinking skills of elementary school students. If each lesson applies a learning model that supports students to think creatively, then the ability of students to solve problems, generate new ideas also increases. However, as described in research [24], it is true that students with low and moderate abilities still need to be re-evaluated their learning so that the goal of supporting creative thinking skills runs effectively. The ability to think creatively must be owned by every individual, especially in responding to challenges in the digital era and living in the midst of the rapid flow of information which is also a demand for 21st century skills. So that the world of education has an important role to make it happen [25].

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