

THE APPLICATION OF CONTEXTUAL TEACHING AND LEARNING (CTL) THROUGH EXPLORATORY ACTIVITIES TO IMPROVE CRITICAL THINKING SKILLS AT KUNCUP MEKAR KINDERGARTEN

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Abstract. This study aims to describe the application of the Contextual Teaching and Learning (CTL) approach in exploration activities to improve the critical thinking skills of early childhood students at Kuncup Mekar Kindergarten in Banjareja Village. CTL is a learning approach that links material to real-life contexts, while exploration activities provide space for children to actively explore their surroundings. The research method used was descriptive qualitative, with data collection techniques through observation, interviews, and documentation. The research subjects were teachers and children in group B (aged 5–6 years). The results showed that the application of CTL in exploration activities was able to stimulate children's critical thinking skills, such as asking questions, making assumptions, connecting information, and drawing conclusions. Learning becomes more meaningful because children are directly involved in the process of discovering knowledge. In conclusion, the CTL approach in exploration activities is effective in improving critical thinking skills in early childhood.

Keywords: early childhood, critical thinking, CTL, exploratory activities.

INTRODUCTION

Critical thinking skills are one of the important skills that need to be developed from an early age. Critical thinking skills in children are reflected in their ability to observe deeply, assess information objectively, and draw logical conclusions. and conclude information in real-life situations. Young children have great potential to begin developing this skill from the preschool stage. Several studies show that children's critical thinking skills are closely linked to their cognitive and socioemotional development (Elza Dwi Yulia et al., 2025). Critical thinking must be introduced early through various appropriate educational approaches (Saputri & Katoningsih, 2023). Students' critical thinking skills will grow and develop over time when individuals encounter relatively new problems or previously unsolved issues. This can occur because when someone obtains new information, that information is stored in their memory so that the information is interconnected (Munawwarah et al., 2020). Critical thinking can shape a sense of responsibility, perseverance, and decision-making skills. Critical thinking also has the ability to analyze reality, generate and organize ideas, stand by one's opinions, make comparisons, draw conclusions, evaluate opinions, and solve problems (Saputri & Katoningsih, 2023). Because children have critical thinking skills, they are not easily swayed by information that is not necessarily true, do not easily become discouraged, and are enthusiastic about new things (Yuliati et al., 2025). Critical thinking requires the use of specific cognitive strategies to test the reliability of ideas, solve problems, and overcome problems and shortcomings (Yuliati et al., 2025). Children who are accustomed to thinking critically will be better able to solve problems, express opinions, and draw conclusions from their experiences (Mansoer et al., 2025). Critical thinking is the ability to use reason to consider and solve problems systematically, so that children can independently overcome problems in their daily lives (Dewi et al., 2025). However, in practice, many learning activities in kindergarten are still one-sided, so they do not fully provide space for children to think actively.

Based on the problems that occurred, the researcher applied Contextual Teaching and Learning (CTL) through exploration activities to improve critical thinking skills at Kuncup Mekar Kindergarten. Contextual Teaching and Learning (CTL) is an approach that links learning materials

to the real-life contexts of children. In this approach, children not only receive information but also experience and relate it to their own experiences. The contextual approach, or Contextual Teaching and Learning, abbreviated as CTL, is a learning concept that helps teachers relate the material they teach to the real-world situations of children and encourages children to make connections between their knowledge and its application in their lives (Wakijo & Suprihatin, 2016). Contextual teaching and learning (CTL) is the connection between learning materials and the experiences or environment of students, so that students will play an active role in developing their abilities because they try to learn the learning materials and relate them to their surroundings and are able to apply them (Fadilah, 2025). CTL is a learning method that enables a learning process in which children use their understanding and academic abilities in various contexts inside and outside of school to solve simulated or real problems, either individually or together (Astini et al., 2025). One form of activity that is in line with CTL is exploring, where children are encouraged to observe their surroundings, ask questions, and discover knowledge through direct exploration. This approach not only helps children understand concepts more concretely, but also encourages them to think creatively through direct experience and reflection. In this way, children are encouraged to apply what they have learned in their daily lives, so that they will feel more motivated to complete the tasks assigned to them. In addition, children will learn to seek information and discuss with their friends, which in turn will stimulate their thinking skills. They can relate the knowledge they already have to the new information they have learned.

Kuncup Mekar Kindergarten in Banjareja Village was chosen as the research location because the teachers there began to apply the CTL approach in learning, especially in exploration activities.

Exploration activities are carried out every Friday after the Iqro reading activity. Exploration activities with children in the surrounding environment involve exploring natural and concrete objects by combining the knowledge gained in class. Exploration is carried out in accordance with the theme for that week. This study aims to describe the process of implementing CTL in exploration activities and its impact on the critical thinking skills of early childhood.

RESEARCH METHOD

This study uses a descriptive qualitative method, which is a research method that aims to describe in depth the application of the Contextual Teaching and Learning (CTL) approach in exploration activities and its impact on the critical thinking skills of early childhood (Imajinasi et al., 2025). The qualitative approach was used because the data obtained consisted of words, actions, and documents that described the learning process in real terms, rather than statistical figures.

RESULT AND ANALYSIS

1.1 Research Concept

The main concept in this study is the application of the Contextual Teaching and Learning (CTL) approach in exploration activities. CTL is a learning approach that emphasizes the connection between subject matter and the real-life context of children. The Contextual Teaching and Learning (CTL) approach allows children to learn through real experiences that are relevant to their daily lives, making the learning process more complete and meaningful (Arif & Mau, 2025). Research conducted at Kuncup Mekar Early Childhood Education Center shows that the application of CTL can improve critical thinking skills, as children can directly experience and apply the concepts they learn in their surroundings. This approach encourages children to learn through direct experience so that the knowledge they acquire becomes more meaningful (meaningful learning). In this context, exploration activities are used as a means of implementing CTL, where children are given the opportunity to observe, ask questions, investigate, and discover knowledge concepts for themselves through interaction with their surroundings.

1.2 Research Subjects and Locations

The research was conducted at Kuncup Mekar Kindergarten in Banjareja Village. The research subjects consisted of teachers and children in group B (aged 5–6 years). This location was chosen because it had implemented the CTL approach in its weekly exploration activities. Children aged 5–6 years are in the pre-operational stage of cognitive development, where curiosity, questioning skills, and logical thinking skills begin to develop rapidly, making them suitable for exploratory activities, where they learn through direct exploration and real experiences (Anggrian & Saefurahman, 2025).

1.3 Data Collection Techniques

Data was collected through three main techniques, namely. Observation, to observe the implementation of CTL learning in exploration activities and children's critical thinking behavior. Interviews were conducted with teachers to obtain information about planning, implementation, and obstacles in applying CTL. Documentation, in the form of photos of activities, learning notes, and children's work as supporting evidence. Interviews were conducted with the Kuncup Mekar Kindergarten Foundation, teachers and educators, and parents of students to obtain information related to the implementation of CTL through exploration activities to improve critical thinking skills. Observations were conducted by directly observing the weekly exploration activities held every Friday at Kuncup Mekar Kindergarten, such as exploring the vegetable garden, the goat pen, and the mosque according to the theme of that week (Izzah et al., 2025).

1.4 Data Analysis Techniques

Data analysis using the Miles and Huberman model consists of three main stages: Data reduction, which involves selecting and simplifying data relevant to the research focus (Asmamulan et al., 2025). Data presentation, which involves compiling data in the form of a narrative description that illustrates the CTL implementation process. Drawing conclusions and verification, which involves interpreting the meaning of the data and drawing conclusions in line with the research objectives.

1.5 Data Analysis Techniques

The research steps were developed based on the Contextual Teaching and Learning (CTL) theory (Sari et al., 2025), which includes seven main components:

Constructivism: Children construct their own knowledge through direct experience in exploratory activities. Teachers act as facilitators who provide meaningful learning experiences. Discovering: Children are guided to seek and discover new information through observation, simple experiments, or exploration of their environment. Questioning: Teachers encourage children to actively ask questions about the phenomena they encounter, thereby stimulating curiosity and critical thinking. Learning Community: Children learn in groups, discuss, and share their findings to enrich their learning experience together. Modeling: Teachers provide concrete examples in conducting exploration activities, such as how to observe, write down observations, or draw conclusions. Reflection: Children are encouraged to recall the activities they have done and draw meaning from the experience. Authentic Assessment: Teachers assess children's abilities based on the learning process and actual results, such as the ability to ask questions, analyze, connect information, and conclude the results of exploration.

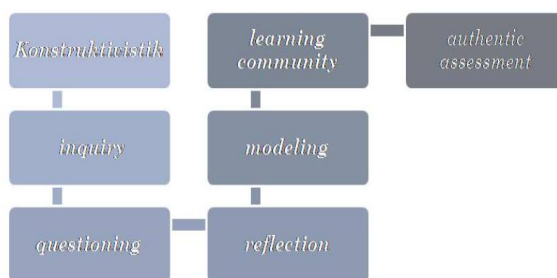


Fig. 1. The research steps were developed based on the Contextual Teaching and Learning (CTL) theory

The stages of research implementation consist of:

Preparation Stage: Developing a research plan, observation instruments, and obtaining permission from the school. Implementation Stage: Observing the application of CTL in exploration activities. Data Collection Stage: Collecting data through observation, interviews, and documentation. Analysis Stage: Analyzing research results based on CTL theory and critical thinking indicators. Conclusion Stage: Concluding the effectiveness of CTL application in improving children's critical thinking skills.

Table 1. Places to explore by theme

Week	Theme	Place to explore
Week 1	Plants	Vegetable garden
Week 2	Animals	Farm
Week 3	Place of worship	Mosque
Week 4	Shopping place	Market

Based on the data collected, several important points were found regarding the application of CTL in exploration activities:

1. Activity Planning
Teachers prepare exploration activities that are relevant to the learning theme, for example, exploring the school garden when the theme is "Plants" or observing insects when the theme is "Animals."
1. Activity Implementation
Children are taken to the school surroundings to observe directly. Teachers ask provoking questions such as "Why are these leaves dry?" or "What happens if the soil is not watered?"
2. Children's Responses
Children are seen to be actively observing, asking questions, giving opinions, and drawing conclusions from their observations. Many children begin to be able to connect one piece of information with another.
3. Teacher's Role
Teachers act as facilitators who guide children to discover knowledge through questions, guidance, and positive reinforcement.



Fig. 2. Pictures exploring the garden and chicken coop

CONCLUSION

The application of the Contextual Teaching and Learning (CTL) approach in exploration activities has been proven to improve the critical thinking skills of early childhood students at Kuncup Mekar Kindergarten in Banjareja Village. Children become more active, critical, and involved in a fun and meaningful learning process. Based on the research results, it can be concluded that the application of the Contextual Teaching and Learning (CTL) approach in exploratory activities has been proven effective in improving the critical thinking skills of early childhood students. Through exploratory activities oriented towards real experiences, children become more active in asking questions, able to connect information, reason, and draw simple conclusions from their observations. The CTL approach makes learning more meaningful because children do not only receive information, but also build knowledge through direct experience. Teachers act as facilitators who motivate and guide children's exploration process. Thus, the application of CTL through exploration activities can be used as an alternative effective learning strategy to develop critical thinking skills from an early age. One of the recommendations from this study is that teachers should use the CTL approach more often, especially in exploration activities, so that children gain more concrete and meaningful learning experiences and for further research, it is recommended to examine other aspects that may develop through the application of CTL, such as communication skills, cooperation, or creativity in early childhood.

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