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Profile of Early Childhood Critical Thinking Skills

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Abstract: This study aims to describe the profile of critical thinking skills in early childhood. Critical thinking is a 21st-century skill that needs to be developed from an early age through meaningful learning experiences. This study uses a descriptive method with a qualitative approach. The subjects were early childhood education units (PAUD). Data collection techniques were carried out through observation, interviews with educators, and documentation of learning activities. Data analysis was carried out qualitatively through the stages of data reduction, data presentation, and drawing conclusions. The results show that early childhood critical thinking skills are seen in indicators of observing, asking questions, expressing opinions, identifying simple problems, and trying to find solutions through play activities and thematic learning. However, the level of children's critical thinking skills still varies and is influenced by learning strategies, the role of educators, and the learning environment. This study concludes that the development of critical thinking skills in early childhood requires child-centered learning support, consistent stimulation, and a conducive learning environment. The findings of this study are expected to serve as a reference for educators in designing learning activities that can stimulate critical thinking skills from an early age.

Keywords: Childhood; Critical thinking; Profile; Skill

Introduction

The importance of critical thinking lies in the importance of being competitive in the workplace and in personal life. Students must possess problem-solving skills and be able to think creatively. Therefore, it is crucial to develop critical thinking skills in every learning activity, allowing students to freely determine topics/issues to be discussed related to the material they have learned, and to express ideas in an atmosphere of mutual respect to encourage students to think and continue exploring.

Critical thinking issues have not yet attracted the attention of teachers in schools, classroom learning has not yet trained students to discover concepts independently, students' thinking skills have not been developed through problem-solving, students are not accustomed to observation, and often use the lecture method. Furthermore, junior high school students still require guidance and synchronous communication, where learning interactions between teachers and students occur simultaneously, using learning media technology.

Critical thinking encompasses the ability to understand an object, test hypotheses, and communicate the results of investigations. Critical thinking is a mental process involving cognitive processing (Böckers et al., 2014). Critical thinking skills play a crucial role in supporting individuals in expanding and creating knowledge and ideas (Papaleontiou-Louca et al., 2014).

The critical thinking skills used in this study are based on the theory of Treffinger et al. (2002), which encompasses fluency, flexibility, originality, and elaboration. Some studies agree that critical thinking is the ability to create work that is unique, useful, and generative. Therefore, critical thinking is considered a skill trait. This idea is further projected with the assumption that a person's critical thinking level can be assessed using other dimensions.

Research on critical thinking skills has been conducted extensively in various countries and has found that critical thinking skills decline over time, particularly between kindergarten and third grade (Fink

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et al., 2007). Meanwhile, research by Matud et al. (2007) found that students in Israel have different critical thinking skills between males and females of the same age.

Low critical thinking skills will impact learning outcomes. Research conducted by Sarwanto et al. (2021) found that low critical thinking skills will certainly impact children's learning outcomes. This impact stems from children's tendency to simply accept others' opinions without analyzing and seeking the truth for themselves. Children will only pause to question or analyze the problem presented. Meanwhile, research by Bustami et al. (2018); Pursitasari et al. (2020); Zubaidah et al. (2018) indicates that critical thinking skills enable students to question or consider alternatives, draw conclusions, solve problems, and make decisions.

A study by Komariyah & Laili (2018) found that critical thinking significantly influences student learning outcomes. Research by Fong et al. (2017) demonstrated that critical thinking skills influence learning success and are crucial for developing critical thinking skills. Furthermore, Kepenekci (2010) found that social learning outcomes can be accumulated through critical thinking.

The Indonesian government has implemented various approaches, including curriculum changes, but their implementation remains suboptimal, despite numerous studies aimed at improving critical thinking skills. Therefore, it is necessary to conduct research to describe the profile of students' critical thinking abilities in PIAUD children and it is hoped that this research can provide information and an overview to researchers so that researchers can develop learning models or learning media to improve critical thinking abilities according to the needs of PIAUD children.

Method

This study aims to determine and describe the profile of children's critical thinking abilities. The study used a descriptive method with a qualitative approach, focusing on an in-depth description of children's critical thinking abilities as they emerge during the learning process and daily activities.

The subjects were early childhood education (PAUD) students selected purposively, considering the suitability of the subjects' characteristics to the research objectives. The object of this study was children's critical thinking abilities, which encompass several indicators, such as the ability to observe, ask questions, express opinions, identify simple problems, and try to provide solutions.

The instrument used in this study was a rubric for critical thinking skills in early childhood. This rubric was compiled based on indicators of critical thinking abilities and was used to assess and describe the level of children's abilities during learning activities. Data collection was conducted through direct observation of children's activities, using the rubric as a recording guide, and supported by documentation in the form of field notes and children's work.

Data analysis was conducted using qualitative analysis techniques, which involved three stages: data reduction, data presentation, and conclusion drawing (Sugiyono, 2021). In the data reduction stage, the researcher sorted and simplified the observational data according to the research focus. Next, the data is presented in the form of narrative descriptions and a summary table of the children's critical thinking ability profiles. The final stage is drawing conclusions, which is done by interpreting the data in depth to obtain a complete picture of the children's critical thinking ability profiles. Data validity is maintained through diligent observation and source triangulation.

Result and Discussion

In the assessment, students' critical thinking skills were measured across five aspects: providing simple explanations, building basic skills, drawing conclusions, providing further explanations, and developing tactical strategies. The analysis of the critical thinking skills questionnaire yielded an average score of 87.56%. This indicates that the online learning model using a learning management system can improve students' critical thinking skills.

The use of online learning models provides students with the opportunity to share findings and information with peers, teachers, and parents. This allows students to exchange information through collaborative learning (Manik & Gafur, 2016). This online learning model provides students with the opportunity to ask questions of peers and teachers and respond by analyzing ideas or arguments discovered through group discussions. The teacher acts as a facilitator in the learning process. Students actively participate in the learning process by communicating with each other and with the teacher. The use of online learning models impacts students' understanding of critical thinking, fostering social skills, and fostering rapid decision-making.

The use of media in learning is very important for students in obtaining information from the learning environment and always seeing the positive and negative impacts of the use of the media (Lubis et al., 2023; Maurer et al., 2020). In addition, through the guidance of educators when the process of using the media is carried out, it will be more targeted and optimal. On the other hand, as an affirmation of the results of this study, it can be interpreted that, "ideal

education must be directed at the process of forming noble characters, in addition to mastering science, so that the humans who will be produced in the future are humans who are able to control various kinds of technology, not humans who are controlled by existing technology (Joy, 2020).

Conclusion

The conclusion of this study is that children's critical thinking skills are still relatively low. The results indicate that children's critical thinking skills require serious attention and development, given their low critical thinking abilities.

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This article was written by single authors i.e S.

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Conflict of Interest
The authors declare that they have no conflict of interest related to this study.

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