

Analysis Of The Needs For Early Children's Creative Thinking In Indonesia

Mallevi Agustin Ningrum¹, Budi Jatmiko¹, Mochamad Nursalim¹, Suryanti¹, Lailatun Nazar¹

Universitas Negeri Surabaya, Surabaya, Indonesia malleviningrum@unesa.ac.id

Abstract. This studyaims to identify the creative thinking skills of children aged 5-6 years inIndonesia. A qualitative method with a reflective descriptive type is applied in this research. Theresearch was conducted at an early childhood educationinstitution involving100 earlychildhood observations. The findings show that creative thinkingskills in early childhood in Indonesia haveachieved indicators of fluency and flexibility, however, it is still limited in terms of elaboration and originality indicators. These results indicate that early childhood creative thinking skills stilldepend on the teacher's direction, so there is a need for activities that lead to the achievement of discovering new things to support various challenges in the 4.0 era. In addition, learning models and specific learning tools are the supporting factors for developing creative thinking in young children in Indonesia.

Keywords: Analysis, Creative Thinking, Children, Early Age

1 Introduction

Skills development for child students is one of the challenges in the world of education in the 21stcentury and needs to be improved (Ah-Nam & Osman, 2017). 21st century learning is a crucial element in the learning process namely by emphasizing the process of mastering the abilities needed for lifelong learning. The development of 21st-century skills in learning is considered important to make each individual have abilities that are useful for the future known as 4C in- cludes communication (communication), collaboration (collaboration), critical thinking (critical thinking), and creativity (creative thinking) (Luterbach & Brown, 2011). The 4C skills in early childhood are useful for preparing them to face life so they can adapt to their surroundings. One of

A. Mustofa et al. (eds.), *Proceedings of the International Joint Conference on Arts and Humanities 2023 (IJCAH 2023)*, Advances in Social Science, Education and Humanities Research 785, https://doi.org/10.2991/978-2-38476-152-4 124 the skills that children must have is creative thinking, the hope is that it will be easier to solvevarious challenges in everyday life (Eyni et al. 2021). Creative thinking can be interpreted as an important foundation of knowledge for children (Siburian et al., 2019). According to Munandar, indicators of creative thinking include fluency, flexibility, originality, and elaboration (Harisud- din, 2019). Children who have creative thinking skills can find new approaches to dealing with tasks, problems, and challenges they face and find more effective and innovative solutions. This is what makes it important for children to be equipped with creative thinking skills from an earlyage.

The 2018 PISA survey found that children's creative thinking abilities age Early childhood devel-opment in Indonesia is still relatively low, in the survey Indonesia ranks 74th out of 79 countriesthat took part in the survey. Indonesia is in an alarming position because it never got an average score from the Organization for Economic Co-operation and Development (OECD) of 489 and got it far below the existing average score (Wuryanto & Abduh, 2022). Through the survey resultscan be described that creative thinking skills in Indonesian children have not yet reached an opti-mal level, so early childhood education has a very vital role in increasing children's creative think-ing from an early age through various and varied activities to analyze think level high to find different solutions and tend to be new. Reinforced by previous findings in research (Cahyani et al., 2020) that creative thinking child age early can be improved through constructive and active play.

This article aims to analyze thinking creatively in children 5-6 years old using the descriptive qualitative method participatory. It is selected because not only describes the ability to think cre-atively from facet product results only work, but the process is also seen as an effort individual show thinking creatively. Naturally, This is different from previous research that has by (Shea etal., 2013) beholder phenomenon of life using qualitative photovoice as a representation of creativethoughts and ideas by the tribe Australian minority. Other studies (Agnoli et al., 2022; Azaryahuet al., 2023; Stephenson, 2023) have also been done to measure think creativity However Haven'tmade a recommendation yet to analyze the needs required by the respondents. This research attempts to study in a manner deep about the stimulating process of think creative Child age early so it can be seen factors supporting and inhibiting and eliciting recommended activities needed instimulating think creative child age early.

2 Methods

This research uses descriptive qualitative research participative namely research that uses qualitative data and is described to produce an in-depth picture of the creative thinking of childrenaged 5-6 years, where researchers also took part in eliciting processes and products think creative.Descriptive qualitative research is research that describes or describes a phenomenon that occurs in the subject and is carried out in-depth (Arikunto, 2010). Respondents of this study involved 88children 5-6 years old. Observation is the main data and interviews are used as secondary data.

3 Findings and Discussion

3.1 The results of research in Kindergarten A

Findings show that the fluency indicator shows that 25% of children tend to give general answerswhen asked by the teacher, children only give one to two answers when asked by the teacher. On the flexibility indicator 83 % of the children were still not able to vary the answers, the children tended to accept the answers given by their friends without any other variations of the answers. On the originality indicator, 92 % of children still depend on the teacher's instructions, this can be seen when the teacher gives an example of making a work of art and on average the children still follow what the teacher exemplifies. On the elaboration indicator, as many as 15% of childrencan develop work and add lines to an image neatly but still have to rely on the teacher's instructions before working on it. As for the details, This description can be illustrated by the followingdiagram 1.

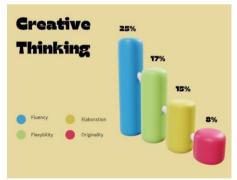
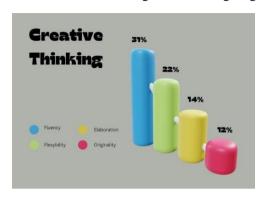
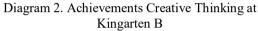


Diagram 1. Achievement Creative Thinking at Kindergarten Institute A

3.2 Research Results in Kindergarten B



Findings on TK B can be demonstrated through the following diagram.



Observations on fluency indicators show that 31% of children tend to give general answers whenasked by the teacher. On the flexibility indicator 78% of the children were still not able to vary the answers, the children tended to accept the answers given by their friends without any other variations of the answers. When children were asked to group true and false images, some childrenwere able to group images according to categories, but there were still children who were con-fused. On the originality indicator, 88% of children still depend on friends. When asked to create circle image into a flower image, children still tend to imitate their friends. On the elaboration indicator, 14% of the children were able to develop their work and add lines to an image, but it was still found that the children did not do what the teacher had explained.

3.3 Research Results in Kindergarten C

Observations on fluency indicators show that 42% of children tend to give general answers whenasked by the teacher. On the flexibility indicator 38% of the children were still not able to vary the answers, the children tended to accept the answers given by their friends without any other variations of the answers. When children were asked to group true and false images, some childrenwere able to group images according to categories, but there were still children who were con-fused. On the originality indicator, 89% of children still depend on the teacher's instructions, thiscan be seen when the teacher gives an example of making an image of work and on average, the child still follows what the teacher exemplifies. On the elaboration indicator, 14% of the children who had to be assisted by the teacher in doing it. This description can be described in the following diagram.

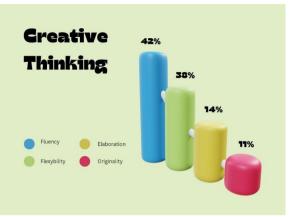


Figure 3. Achievements Creative Thinking at Kindergten Institute C

3.4 Research Results in Kindergarten D

Observations on fluency indicators show that 37% of children tend to give general answers when asked by the teacher, children only give one to two answers when asked by the teacher. On the flexibility indicator 26 % of the children were still not able to vary the answers, the children tended to accept the answers given by their friends without any other variations of the answers. On the originality indicator, 81 % of children still depend on friends. When asked to create a circleimage into a flower image, children still tend to imitate their friends, but some children can createcomplex drawings independently, such as drawing flowers with clouds added. sun, soil, and oth-ers. On the elaboration indicator of 20 %, children can develop work and add lines to an image neatly but still have to rely on the teacher's instructions before working on it. This description canbe described in the following diagram.

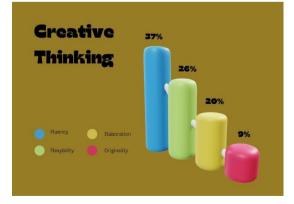


Figure 4. Achievements Creative Thinking at Kindergarten Institute D

3.5 Research Results in Kindergarten E

Based on the observations of 14 children on fluency indicators, 35 % of children tended to givegeneral answers when asked by the teacher, children only gave one to two answers when asked by the teacher. On the flexibility indicator of 29 %, children are still not able to vary answers, children tend to accept answers that have been conveyed by their friends without any other vari-ations of answers. On the originality indicator, 95 % of the children still depend on the teacher's instructions, this can be seen when the teacher gives an example of making a work of art and on average the children still follow what the teacher exemplifies. On the elaboration indicator, 17 % of the children can develop work and add lines to an image neatly but still have to rely on the teacher's instructions before working on it. This description can be shown in the diagram below.

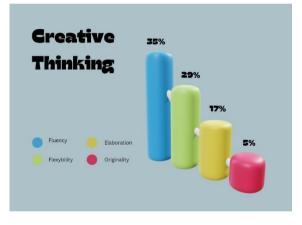


Chart 5. Achievements Creative Thinking at Kindergarten Institute E

Based on the results of data analysis, an overview of the creative thinking of children aged 5-6years is obtained which contains the following 4 indicators of creative thinking: 1) Think fluently(fluency), seen from the behavior of children who like to ask questions, have many ideas about aproblem, and the ability to express their ideas. This is illustrated through the activities of the children discussing together, the teacher and the children ask each other questions and answers. The children were able to ask for several answers, but there were still children who did not answer the teacher's questions. Then for the ability to ask questions the average has not been seen, chil- dren tend to still hesitate to express their ideas and only answer when

asked by the teacher, 2) Think flexibly (flexibility) can be seen from how the child's behavior in giving a variety of unu- sual uses for an object, giving various interpretations of an image, story or problem. This is illus-trated by the variation in children's answers when carrying out joint discussions, children carryingout activities classifying activities as right and wrong. The child was still not able to vary the answers from his friends and found children who actively answered with the same answers as their friends. Then in the activity of classifying the right and wrong activities, the child can group the pictures correctly but still needs teacher instructions before doing it. However, it is still foundthat children are wrong in classifying pictures because these children focus on other things when the teacher explains the rules of the game, 3) Elaboration can be seen from how the child's behav-ior develops or enriches the ideas of others. This is illustrated by the child's ability to develop answers when discussing together, adding lines, colors, and parts to an image such as making patterns of straight lines, curved lines, small circles, and dots. Children are already able to detailpictures, but still tend to imitate their friends, when asked to develop patterns by giving average colors children also tend to imitate their friends when choosing colors, 4) Think original (origi- nality) can be seen from behavior or imaginative things that other people never think about. Thisis illustrated through the child's ability to answer questions that other friends did not think of during joint discussion activities. Children can also produce works with good combinations suchas drawing flowers. Children answer questions that their friends don't think of yet are still invisible because children tend to imitate what their friends say. Then in the activity of making works, it was found that very few children were able to create pictures independently, and on average otherchildren imitated what was exemplified by the teacher and also imitated what their neighbors made.

Indicator think measured creativity in this study the average is still very low elaboration and originality, these results are supported by studies (Dilekci & Karatay, 2023) that think creativity often controlled by children educate is an indicator of fluency and flexibility, so it needs to be directed towards capable learning stimulate in a manner intact indicators of elaboration and orig-inality. Other data shows that teachers are lacking explore learning activities that can stimulate creative thinking children Because the form of activity focused on question and answer only with-out another variation. Limited learning resources are also one of the factors that hinder teachers from implementing learning that is oriented toward increasing creativity. Teachers still do not enough utilize learning resources that focus on creative thinking for children aged 5-6 years. Forthis reason, it is necessary to have learning resources that are used by teachers in implementing learning in schools. The use of facilities must also be adjusted to the characteristics, attractiveness, and safe of a child. This result is in line with (Behnamnia et al., 2020; Henriksen et al., 2020; Vally et al., 2019) that learning is intact, and utilizing technology can stimulate thinking creative in children.

4 Conclusion

Findings show that children aged 5-6 years can bring up creative thinking skills through the designof varied activities and systematic planning. Observation by deep that has been done can show that still child difficulty in matter discovering and generating new ideas and thinking about detailof something object/problem, this can be seen in the children who still depend on the teacher's instructions before doing. For that, future research needs to be done about study material to de- velop think creative through the various activities it carries draft play through a world of playfulfun and enter aspect technology in the learning process.

References

- Agnoli, S., Pozzoli, T., Mancini, G., Franchin, L., Mastria, S., & Corazza, G. E. (2022). This is My Fairy Tale: How Emotional Intelligence Interacts with a Training Intervention in Enhancing Children's Creative Potential. *The Journal of Creative Behavior*, 56(3), 465–482.
- Ah-Nam, L., & Osman, K. (2017). Developing 21st century skills through a constructivistcon- structionist learning environment. K-12 Stem Education, 3(2), 205–216.
- 3. Arikunto, S. (2010). Prosedur Penelitian: Suatu Pendekatan Praktik (Jakarta). Rineka Cipta.
- Azaryahu, L., Broza, O., Cohen, S., Hershkovitz, S., & Adi-Japha, E. (2023). Development of creative thinking patterns via math and music. *Thinking Skills and Creativity*, 47, 101196.
- Behnamnia, N., Kamsin, A., Ismail, M. A. B., & Hayati, A. (2020). The effective components ofcreativity in digital game-based learning among young children: A case study. *Children andYouth Services Review*, 116, 105227.
- Cahyani, G. R., Tegeh, I. M., & Magta, M. (2020). Pengaruh Metode Outbond terhadap Kemam-puan Berpikir Kreatif Kelompok B Gugus I Kecamatan Sawan. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 8(1), 35–44.
- Dilekçi, A., & Karatay, H. (2023). The Effects Of The 21st Century Skills Curriculum On The Development Of Students'Creative Thinking Skills. *Thinking Skills and Creativity*, 101229.
- Eyni, S., Ebadi, M., Saadatmand, S., & Torabi, N. (2021). The role of creative thinking, mindful-ness and emotional intelligence in predicting the academic stress of gifted students. *Thinkingand Children*, 11(2), 183–210.
- 9. Harisuddin, M. I. (2019). Secuit Esensi Berpikir Kreatif & Motivasi Belajar Siswa. PT. Panca Terra Firma.
- Henriksen, D., Richardson, C., & Shack, K. (2020). Mindfulness and creativity: Implications forthinking and learning. *Thinking Skills and Creativity*, 37, 100689.
- 11. Luterbach, K. J., & Brown, C. (2011). Education for the 21st century. *International Journal* of Applied Educational Studies, 11(1).
- 12. Shea, J. M., Poudrier, J., Professor, A., Thomas, R., Jeffery, B., Kiskotagan, L., Youth Addictions, R., Counsellor, W., & Battleford, N. (2013). *Reflections from a Creative Community*-

BasedParticipatory Research Project Exploring Health and Body Image with First Nations Girls.

- Siburian, J., Corebima, A. D., Ibrohim, & Saptasari, M. (2019). The correlation between critical and creative thinking skills on cognitive learning results. *Eurasian Journal of Educational Research*, 2019(81), 99–114. https://doi.org/10.14689/ejer.2019.81.6
- 14. Stephenson, L. (2023). Collective creativity and wellbeing dispositions: Children's perceptions of learning through drama. *Thinking Skills and Creativity*, 47, 101188.
- Vally, Z., Salloum, L., AlQedra, D., El Shazly, S., Albloshi, M., Alsheraifi, S., & Alkaabi, A. (2019). Examining the effects of creativity training on creative production, creative selfefficacy, and neuro-executive functioning. *Thinking Skills and Creativity*, 31, 70–78.
- 16. Wuryanto, H., & Abduh, M. (2022). Mengkaji Kembali Hasil PISA sebagai Pendekatan Inovasi Pembelajaran untuk Peningkatan Kompetensi Literasi dan Numerasi. Direktorat Guru Pen- didikan Dasar. https://gurudikdas.kemdikbud.go.id/news/mengkaji-kembalihasil-pisa-se-bagai-pendekatan-inovasi-pembelajaran--untuk-peningkatan-kompetensi-li

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