

The Snakes and Ladders Game: Developing the Early Childhoods' Cognitive Ability at Cendrawasih II Kindergarten

Agus Kuncoro✉

STAI Putra Galuh Ciamis, West Java, Indonesia

✉ email: aguskuncoroengkun@gmail.com

Received:

May 1, 2024

Revised:

May 7, 2024

Accepted:

May 25, 2024

Published:

May 26, 2024

ABSTRACT

A game is a tool functions to develop various aspects of early childhoods' development. One of games is the snakes and ladders which can develop the early childhoods' cognitive ability. This study aims to determine the development on the early childhoods' aged 5-6 years cognitive ability through the use of the snakes and ladders game. This study employs qualitative research method under descriptive approach. The findings of this study show that the snakes and ladders game is beneficial to develop the early childhoods' cognitive ability. The evidence is proved by the early childhoods' response that through playing the snakes and ladders game they are able to recognize the symbols of numbers, know and memorize numbers from 1 to 56 that is written in the board of snakes and ladders game, recognize various types of colors, shapes, and understand the characteristics of the animals contained in the snakes and ladders game. In conclusion, the snakes and ladders game can be an effective game to develop the early childhoods' cognitive ability, besides that the game makes them feel happy to play.

Keywords: *cognitive; early childhood; the snakes and ladders game*

INTRODUCTION

Play is a basic need for every early childhood. Play is early childhoods' world which cannot be removed from their everyday life. Play is an important activity to measure whether they are healthy or not, happy or not, develop physically and psychologically or not. These barometers can be known from their daily play activities with their environment (Wathoni et al., 2024; Wulansari & Azizah, 2018). Practically, play activities can be done with or without using tools or media. Therefore, play activities cannot be limited to play only in a playing area or using expensive play equipment, because play activities can be done by early childhood at home or in the house yard that are regarded cheaper or event free. However, what is the concern is parents or adults around them must pay attention and ensure that they are safe during playing (Agustina et al., 2018; Suyami et al., 2020).

Not only limited to early childhoods' basic needs, playing also has other effects towards early childhoods' growth and development. According to the experts, playing can stimulate early childhoods' physical and mental health. Apart from that, playing can also develop their imagination according to their age development. In addition, playing can stimulate early childhoods' cognitive development, as well as their physical

motoric and social emotional (Ratnadi et al., 2021; Srinivasan, 2018). To stimulate early childhoods' cognitive development, parents and teachers need the appropriate game that is effective and contain appropriate strategy or method to encourage early childhoods to think creatively and also have fun. One of the games is the snakes and ladders game (Abarua & Lokollo, 2021; Suyami et al., 2020).

According to Srinivasan (2018) the snakes and ladders game is a kind of game using board for early childhoods that is played by 2 or more players. On the other hands, the snakes and ladders game is a game using a board in the form of small boxes completed by the certain number filled with a number of 'snakes' and 'ladders' as the link to the boxes (Suyami et al., 2020; Wulansari & Azizah, 2018). The benefit of playing the snakes and ladders game, early childhoods are able to develop cognitive aspects such as counting, recognizing numbers, colors, shapes, symbols, letters, and also animal names and its characteristics (Agustina et al., 2018; Hidayat et al., 2022).

The present study is also underpinned by the previous studies. The first previous study is done by Srinivasan (2018) with the research entitled, "Snake and Ladder Games in Cognition Development on Students with Learning Difficulties". The findings of the study showed that playing way method of teaching children with snake and ladder board is an effective intervention to increase the knowledge of oral health among children. The second previous study is conducted by Suyami et al., (2020) with the research entitled, "Educational Game Snakes and Ladders toward Children Social Development Pre-School Aged in Kindergarten". The findings of the study showed that there is influence of educational game snakes and ladders towards social development of preschool aged children. While the last previous study is carried out by Wathoni et al., (2024) with the research entitled, "Efforts to improve initial numeracy skills through the use of snakes and ladders game media in early childhood". The findings of the study showed that the game media snake stairs can be used to upgradeability count beginning child age, specifically group B. The evidence can be seen from the percentage level increase in activity results repair at which in cycle 1 reached 50% and in cycle 2 reached 87.5%.

Referring to the three previous studies aforementioned, the present study has similarity to the first and third previous studies that discusses the snakes and ladders game to develop early childhoods' cognitive. Meanwhile, the present study has dissimilarity to the second previous study at which it discusses the snakes and ladders game to develop early childhoods' social. Nevertheless, the whole previous studies are used as the references of the present study.

In harmony with the background of the study aforementioned, the researcher formulates the research problems, "What cognitive aspects can be developed through playing the snakes and ladders game to the early childhoods?" From this research problem, the purpose of the study is to identify cognitive aspects can be developed through playing the snakes and ladders game to the early childhoods. Furthermore, the present study entitled, "The Snakes and Ladders Game: Developing the Early Childhoods' Cognitive Ability at Cendrawasih II Kindergarten".

METHOD

In the present study, researcher employed qualitative research method (Sugiyono, 2013) under a descriptive approach. Descriptive qualitative is understood as a research design in which researchers observe a series of activities carried out by students in class (Wragg, 1999 in (Hidayat et al., 2022). In addition, according to Fraenkel, et al., (2012) as quoted by in (Hidayat, Nurhayati, et al., 2023), qualitative descriptive is understood as a design that describes the statement of problem as carefully as possible (Hidayat, Tania, et al., 2023).

In relation to the source of the data, the researcher observed a group of twelve early childhoods aged 5-6 years at Cendrawasih II Kindergarten in Banjar Patroman City, West Java. During conducted the research, the researcher was assisted by two teachers as the guide during playing the snakes and ladders game. Thus, the researcher acted as the participant observer because the researcher acted as the teacher who taught and guided the early childhoods during playing the snakes and ladders game. In addition, the process of early childhoods’ play activities was written in a field note. The data written in a field note referred to the Standards of Early Childhood’s Development Achievement Level (STTPA) for aged 5-6 years such as suggested by Hidayat & Nurlatifah (2023). The observation was carried out for a week during January 10th up to 17th, 2022.

FINDINGS AND DISCUSSION

The researcher carried out observation due to the whole activities done by the early childhoods during playing the snakes and ladders game. The researcher observed every activity done by the early childhoods connected with the cognitive aspects. The whole cognitive aspects are written in a field note as described as follow.

Table 1. Observation result

Observation date	Time	Observation result
January 10 th , 2022	08.00-10.00	In the first meeting, the researcher used a conversation method to introduce the snakes and ladders game to the early childhoods. From the observation, it is known that only 5 or 38,46% of early childhoods responded and understand how to play the game.
January 11 th , 2022	08.00-10.00	In the second day, the researcher used the storytelling method to know the early childhoods’ knowledge and skill of playing the snakes and ladders game. From the observation, there were 7 or 53,84% of early childhoods responded and understand how to play the game.
January 12 th , 2022	08.30-10.00	In the third meeting, the researcher applied modelling at which the teachers behaved as the models. The teachers immediately acted as the players of the snake and ladders game. Then, the teachers asked for the early childhoods to join and practice the game. From the observation, there were 10 or 84,61% responded to join the game.

In addition, the teachers collaborated with parents in order that the early childhoods have habit to play the snakes and ladders game at home. It means that through habituation, they can develop their cognitive aspects.

January 2022	13 th , 08.00-10.00	In the fourth meeting, the teachers asked for the parents to write what kids of cognitive aspects mastered by their early childhood after carrying out the exercise to play the snakes and ladders game at home.
January 2022	17 th , 08.00-10.30	<p>In the fifth meeting, after the early childhoods had 3 holidays, the researcher asked for the parents to write the answer from these following questions:</p> <ol style="list-style-type: none"> 1. Do the parents and the early childhood play the snakes and ladders game for 3 days at home? 2. After having the habit to play the snakes and ladders game, what cognitive aspects do appear from your early childhood? <p>From those two questions, the whole parents habitualized their early childhoods to play the snakes and ladders game. For the cognitive aspects, the parents wrote that their early childhoods are able to: (a) recognize the symbols of numbers, (b) know and memorize numbers from 1 to 56 that is written in the board of snakes and ladders game, (c) recognize various types of colors, shapes, and (d) understand the characteristics of the animals contained in the snakes and ladders game.</p> <p>Afterwards, the researcher asked for the teachers to play the snakes and ladders game with the whole early childhoods which is divided into three session: (session 1, a teacher played with 4 early childhoods; session 2, a teacher played with 4 early childhoods, and session 3, a teacher played with 5 early childhoods). The results, 13 or 100% of the early childhoods responded to join the game.</p> <p>From the last observation result, the researcher re-conformed that the cognitive aspects developed through playing the snakes and ladders game impacted on: (a) recognize the symbols of numbers, (b) know and memorize numbers from 1 to 56 that is written in the board of snakes and ladders game, (c) recognize various types of colors, shapes, and (d) understand the characteristics of the animals contained in the snakes and ladders game.</p> <p style="text-align: right;">(Data, 2022)</p>

Based on the data gathered from the aforementioned field note, the whole process of the observation towards the implementation of playing the snakes and ladders carried out by early childhoods and guided by two teachers requiring 3 methods. The methods cover conversation, storytelling, and modelling. The combined methods are needed to be applied by the teachers to acquire maximal result of cognitive aspects experienced by the early childhoods. Thus, playing the snakes and ladders game provided optimal results in the development of the early childhoods' cognitive aspects, including: (a) recognize the symbols of numbers, (b) know and memorize numbers from 1 to 56 that is written in the board of snakes and ladders game, (c) recognize various types of colors, shapes, and (d) understand the characteristics of the animals contained in the snakes and ladders game.

After highlighting the findings of the present research, the researcher needs to discuss the research problem set forth in the preceding point. The research problem proposed is: "What cognitive aspects can be developed through playing the snakes and ladders game to the early childhoods?" based on the evidence written in the field note on January 17th, 2022, the cognitive aspects developed through playing the snakes and

ladders game cover: (a) recognize the symbols of numbers, (b) know and memorize numbers from 1 to 56 that is written in the board of snakes and ladders game, (c) recognize various types of colors, shapes, and (d) understand the characteristics of the animals contained in the snakes and ladders game. Thus, playing the snakes and ladders game for several times combined by the appropriate methods can be regarded as an effective game applied for the early childhoods in kindergarten level.

The findings of the present study are in line with the findings of the first and third previous studies carried out by [Srinivasan \(2018\)](#) and [Wathoni et al., \(2024\)](#) at which playing the snakes and ladders game developed the early childhoods' cognitive aspects. Besides that, there is another findings of the present study at which playing the snakes and ladders game can be effectively applied to the early childhoods through the use of three combined methods of teaching. Those three combined methods consisted of conversation, storytelling, and modelling methods. These other findings become the novelty of the present study. This novelty is also supported by other studies such as conducted by [\(Chayati et al., 2021; Lellyawaty et al., 2022; Mulyono et al., 2023; Ratnadi et al., 2021; Yemima et al., 2019\)](#).

CONCLUSION

In line with the findings and discussion presented aforementioned, the researcher concluded that playing the snakes and ladders game provided optimal results in the development of the early childhoods' cognitive aspects, including: recognize the symbols of numbers, know and memorize numbers from 1 to 56 that is written in the board of snakes and ladders game, recognize various types of colors, shapes, and understand the characteristics of the animals contained in the snakes and ladders game. Besides that playing the snakes and ladders game can be effectively applied to the early childhoods through completed by the use of three combined methods of teaching, such as: conversation, storytelling, and modelling methods.

ACKNOWLEDGMENTS

The researcher thanks to the management of STAI Putra Galuh Ciamis for the financial supports to this scientific program.

REFERENCES

- Abarua, H., & Lokollo, L. J. (2021). The Effect of Instruction Using Arithmetic Bowling and Snake and Ladder Games In Increasing Cognitive Development of Early Childhood In Ambon City. *International Journal of Education, Information Technology and Others (IJEIT)*, 4(1), 50–61. <https://doi.org/10.5281/zenodo.4668005>
- Agustina, W., Hapidin, & Tarwiyah, T. (2018). Developing Educative Snake and Ladder Learning Media to Improve Understanding on Living Creature Concept. *Jurnal Pendidikan Dan Pengajaran*, 51(3), 145–153. <https://doi.org/10.14741/ijmcr/v.6.4.1>
- Chayati, N., Sugiyo, S., & Sulistiyorini, S. (2021). The Influence of Snake-Ladder

- Game toward Early Childhood Children's Mathematics Skills. *Journal of Primary Education*, 10(3), 373–380. <https://doi.org/10.15294/jpe.v10i3.50696>
- Hidayat, Y., Herniawati, A., & Ihsanda, N. (2022). The Use of Drilling Technique to Teach English Speaking to the Early Childhoods: A Descriptive Study. *Journal Corner of Education, Linguistics, and Literature*, 2(1), 73–80. <https://doi.org/10.54012/jcell.v2i1.66>
- Hidayat, Y., Nurhayati, I., Salamah, S., Rosmiati, M., Fatimah, A. S., & Lastari, L. (2023). Effect of the Educational Game Tools on Early Childhoods in the Kindergarten. *Journal Corner of Education, Linguistics, and Literature*, 3(2), 100–107. <https://doi.org/10.54012/jcell.v3i2.200>
- Hidayat, Y., & Nurlatifah, L. (2023). Analisis komparasi tingkat pencapaian perkembangan anak usia dini (STPPA) berdasarkan permendikbud no. 137 tahun 2014 dengan permendikbudristek No. 5 Tahun 2022. *Jurnal Intisabi*, 1(1), 29–40. <https://doi.org/10.61580/itsb.v1i1.4>
- Hidayat, Y., Tania, N., Nurhayati, N., Kurniasih, N., Nuraeni, H., & Ningsih, S. (2023). An analysis of parenting styles on early childhood's independent character development. *International Journal Corner of Educational Research*, 2(2), 70–76. <https://doi.org/10.54012/ijcer.v2i2.207>
- Lellyawaty, Mariani, & Nisa, C. (2022). Education Prevent Stunting Through Snakes and Ladders Game. *Jurnal Mandala Pengabdian Masyarakat*, 3(2), 135–140. <https://doi.org/10.35311/jmpm.v3i2.81>
- Mulyono, N., Herniawati, A., & Hidayat, Y. (2023). Bedtime Storytelling: A Method to Enhance Early Childhoods' Language Development. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 11(3), 61–69. <https://doi.org/10.23887/paud.v10i3>
- Ratnadi, N. N. A., Marleni, K. D., & Arlinayanti, K. D. (2021). The Snakes and Ladder on Speaking Ability in Children 5-6 Years. *JL3T (Journal of Linguistics, Literature and Language Teaching)*, 7(2), 110–115. <https://doi.org/10.32505/jl3t.v7i2.3286>
- Srinivasan, K. (2018). Snake and Ladder Games in Cognition Development on Students with Learning Difficulties. *Indian Journal of Dental Advancements*, 10(4), 160–170. <https://doi.org/10.5866/2018.10.10160>
- Sugiyono. (2013). *Metodologi Penelitian Kuantitatif, Kualitatif dan R & D*. Bandung: Penerbit Alfabeta.
- Suyami, Sulistyowati, A. D., Khayati, F. N., & Rahayu, R. F. (2020). Educational Game Snakes and Ladders Toward Children Social Development Pre-School Aged in Kindergarten. *Advances in Social Science, Education and Humanities Research*, 436, 602–606. <https://doi.org/10.2991/assehr.k.200529.126>
- Wathoni, H., Suparmiati, S., & Rosliana, R. (2024). Efforts to improve initial numeracy skills through the use of snakes and ladders game media in early childhood. *Jurnal Scientia*, 13(01), 285–297. <https://doi.org/10.58471/scientia.v13i01.2201>
- Wulansari, M., & Azizah, N. (2018). The Effectivity of Snakes And Ladders Game Media to Improve English Vocabulary of Children. *Advances in Social Science, Education and Humanities Research*, 249, 213–218. <https://doi.org/10.2991/secret-18.2018.35>
- Yemima, M., Wijayaningsih, L., & Kurniawan, M. (2019). Enhancing English Vocabulary Through the Use of Snake and Ladder Media for 4 To 6-Year-Old Children. *Satya Widya*, 35(1), 1–15. <https://doi.org/10.24246/j.sw.2019.v35.i1.p1-15>