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ENHANCING EARLY READING SKILLS IN YOUNG CHILDREN THROUGH THE IMPLEMENTATION OF ALPHABET MAZE GAME

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Abstract: *Early reading skills refer to children's initial ability to recognize and pronounce letters. Based on observations conducted at TKN An-Nada in South Aceh, early reading skills among children were found to be low. The children had difficulty recognizing letters, pronouncing letters, identifying letter sounds, and understanding letter symbols. This study examines the implementation of an alphabet maze game in developing early reading skills among children at TKN An-Nada in South Aceh. The research employed an experimental method using a one-group pretest-posttest design. The population consisted of 45 children, while the sample comprised 15 children. Data collection techniques included observation and documentation. The pretest value obtained was 18.75, and the posttest value was 83.33. The value of tcount is 8.8, and the value of ttable is 1.745. This shows that the value of tcount> ttable is 8.8> 1.761, so there is a rejection of Ho and an acceptance of Ha. So, it can be concluded that there is a difference in the value between the tcount and the ttable. Thus, the findings indicate a significant difference between the pretest and post-test scores, concluding that using an alphabet maze game effectively develops early reading skills in young children at TKN An-Nada in South Aceh.*

Keywords: *Alphabet Maze Game, Early Reading Skills of Children*

A. Introduction

Early reading ability is a developmental aspect that must be taught by students from early childhood to upper secondary education. Beginning reading activities consist of four aspects of language skills: listening, speaking, reading, and writing. These four aspects are the basis of language. Reading is an activity or process of knowledge to find various information contained in writing. So, it can be said that reading is a thought process that helps one understand the content of the text. In this case, reading is not just looking at a collection of letters that have formed words, groups of words, sentences, paragraphs, and discourses. Still, more than that, reading is an activity to understand and interpret symbols, signs, or meaningful writing so that the reader can receive the message conveyed by the author. For the elementary school education unit level, reading learning is divided into two types: surface reading learning and advanced reading learning (Muyassyaroh, 2021).

In addition to the foundational aspects of early reading ability, it is important to recognize the role of motivation and engagement in the reading process. Recent research shows that when children are motivated and enjoy reading, they tend to develop stronger literacy skills and are likelier to foster a lifelong love for books. Sholeh et al. (2021) argue that literacy is related to an individual's cognitive abilities. Creating an engaging reading environment, which includes various genres, interactive storytelling, and collaborative reading activities, plays a key role in shaping positive attitudes toward reading. This environment enhances children's comprehension and vocabulary and helps them form personal connections with the texts they read, enriching their understanding of the material.

Fostering intrinsic reading motivation becomes essential as children progress in their educational journey. This is closely linked to improved performance, ultimately making it easier for them to achieve their goals and objectives (Ryan & Deci, 2020). Furthermore, fostering a love for reading is closely linked to creating a supportive environment where children feel encouraged in their reading efforts. Parents and educators are key players in building this environment by actively participating in children's reading and writing activities (Fransisca & Vitaloka, 2022).

Early reading ability is taught programmatically to preschoolers; this program focuses on whole, meaningful words in the child's context and materials provided through games and enjoyable activities such as learning diaries. Beginning reading is an integrated unit of activities that includes several activities such as recognizing letters and words, relating them to sounds and their meanings, and drawing conclusions about the meaning of the reading (Zulianingsih et al., 2020). For instance, engaging children in rhyming games and sound-matching activities can promote phonological skills, which are crucial for reading success. Furthermore, providing children with opportunities to interact with books in various contexts—such as storytelling, shared reading, and independent exploration—fosters a love for reading and strengthens their comprehension skills. As children learn to connect sounds with letters and understand the context of words, they become more confident readers, ready to tackle more complex texts in the future (Christenson & Reschly, 2021).

Reading is a complex thing involving many things, not only reciting writing but also involving visual, thinking, and metacognitive activities because the process of reading is translating written symbols (letters) into spoken words. When a person encounters a piece of writing, he sees it and is said to be reading. However, reading is about writing and capturing the implied and expressed meaning of a reading (Hartani, 2021). Therefore, it can be concluded that early reading is a significant development in children, especially in early childhood. Language development in development is a development that is often used by children in everyday life related to letters from all activities of children's lives. One way to develop early childhood reading is through the alphabet maze game.

The letter Maze comes from an English word interpreted as a network of winding and narrow roads in which dead ends or obstacles can be found. Suggesting that the purpose of *maze* educational game tools is to focus students on learning, train concentration, train memory, find solutions, and train hand muscle flexibility (Lestari, 2019). *Maze* Alphabet is a tortuous children's motor toy containing letters that have 10 various colors, such as red, yellow, green, blue, purple, mint green, salmon, peach, light

yellow, and white (Spencer, 2019). *Maze* is a game that instructs you to keep track of settings, find solace, and practice perseverance. Maze is a game that involves narrow, winding, and turning roads or dead ends. It also has obstacles that stimulate children's imagination. As children work through the maze, they practice problem-solving and critical thinking skills, enhancing their cognitive development (Widyastuti, 2017). *Maze* is one activity that provides direct learning experiences for children (Aulia et al., 2022). *Maze* can also be interpreted as a maze, which is a confusing place. This creative educational tool combines physical or digital mazes with letters or words, encouraging children to navigate the maze while recognizing and practicing letter sounds, formations, or word associations (Rusdianto, 2015).

The use of maze as an educational game tool has significant benefits for the development of young children in various aspects, including cognitive, motor, and socio-emotional. From a cognitive perspective, playing maze can help children develop critical thinking and problem-solving skills. Activities like alphabet maze improved letter recognition and fostered critical thinking and problem-solving skills. These cognitive skills are essential for developing reading fluency and comprehension in young learners. According to recent cognitive development theories, young children can begin to manipulate symbols and develop spatial thinking through activities like maze, which hone their abilities in planning and path prediction (Berger, 2020). In addition, this activity also explores how motor skills and exercise capacity correlate with cognitive functions and academic performance in preadolescent children. This aligns with your discussion on the importance of maze activities in developing fine motor skills, such as hand-eye coordination, and cognitive abilities, like spatial awareness (Geertsen et al., 2016).

Furthermore, mazes contribute to improving children's spatial perception. Recent studies in developmental psychology indicate that games involving spatial manipulation, such as mazes, significantly enhance children's ability to understand concepts of distance and orientation in a three-dimensional environment (Power, M.M., 2024). Additionally, *maze* teach children to focus and persevere when facing challenges. Children involved in problem-solving activities like mazes demonstrate increased

concentration and persistence, in line with contemporary personality development models that emphasize the importance of play in enhancing children's self-regulation skills (Allee, Clark, Roberts, & Hu, 2023). Finally, from a social perspective, mazes played in groups allow children to learn how to share ideas and cooperate. The game-based learning approach in a social context, as outlined in recent research, reveals that collaborative activities like solving mazes with peers enhance social skills and empathy in young children (Johnson & Marlow, 2022).

To ensure that, it can be concluded that Maze Alphabet is a game divided into several sectors or parts in which there are letters. In its use, this media can attract attention, interest, and motivation to learn, make students more active, interactive, and understanding, and allow the learning process to take place in a fun and optimal manner, which aims to introduce letters for early reading in early childhood.

Based on the results of initial observations made by researchers at TKN An-Nada South Aceh on 24 July to 28, 2023, it is known that the ability to read early in children has not developed, so problems were found in one of the development of children aged 5-6 years in the aspect of early reading development. In the learning process of recognizing letters, many children aged 5-6 years at TKN An-nada South Aceh there are still do not know letters, it is challenging to mention letters, children are not able to recognize the sounds of letters that are sounded, children are not able to pronounce letters and letter differences, children are not able to understand the relationship between sounds and letter shapes, children are not able to recognize letter symbols, Inverted understanding of sounds and letters such as "b" to "d" or "d" to "p," "w" to "m" and "u" to "n" or vice versa. The development of early reading skills of children aged 5-6 years based on theory and Permendibud 137 of 2014 that children aged 5-6 years can recognize letters, name letters, name symbols, recognize letter sounds that are sounded from sounds, and mention the relationship between sounds and letter shapes. In addition, it was confirmed by the results of an interview with a class teacher named Mrs. Rika Yulia Asma that in the learning process from beginning to end, the ability to recognize children's letters has not developed.

Based on this background and problems, researchers want to further research and analyze these problems through the title "Enhancing Early Reading Skills in Young Children through the Implementation of Alphabet Maze Game." This study aims to determine whether applying the Alphabet Maze Game can develop children's early reading skills in TKN An-Nada South Aceh.

B. Method

The type of research conducted is quantitative research, which is called quantitative research methods or traditional methods (Sugiyono, 2013). This method is quantitative because research data is in numbers and analyzed using statistics (Sugiyono, 2013).

Research design is conducted in experimental research with one *group pretest-posttest design approach* (Hidayat, 2015). The following is a table of research designs *one group pretest-posttest designs* can be illustrated in the following table:

Tabel 3.1 O2 *and* Post-test *Research Design*

Pre-test	***Treatment***	***Post-test***
O1	X	O2

Source: (Ismail, 2018)

Information:
O1: Initial test (*Pre-test*) before treatment
X: Treatment of the experimental group
O2: Final test (posttest) after treatment

This research was conducted at An-Nada State Kindergarten, located on Jalan Habib Mustafa, Gampong Trieng, Meuduroe Baroh, Sawang District, South Aceh Regency, during the odd semester of the 2023/2024 academic year. The total population at TKN An-Nada South Aceh consisted of 45 children, distributed evenly across three classes: B1, B2, and B3, each comprising 15 children aged 5-6 years. The data collection techniques used in this study were observation and documentation. The data analysis process involved conducting a normality test and a hypothesis test (t-test), as Ramadhan (2021) outlined. These tests were utilized to ensure the data's distribution met the assumptions required for hypothesis testing and to evaluate the research hypotheses.

C. Result and Discussion

This research indicates that applying the letter maze activity significantly enhances early childhood reading skills. This improvement is evident from the comparison between pretest and posttest scores, where the average pretest score was 18.75, increasing to 83.33 in the posttest. Statistical analysis using the t-test further supports these findings, with the calculated t-value (8.8) exceeding the critical t-value (1.761) at a 0.05 significance level, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis.

This demonstrates that the letter maze activity develops children's early reading abilities. Specifically, the activity helped children better understand the relationship between sounds and letter shapes, identify groups of objects with the same initial sounds or letters, and recognize letter symbols and initial sounds of surrounding objects. These results highlight the effectiveness of engaging, interactive learning tools, such as letter mazes, in supporting foundational literacy skills in young learners.

Table 3.2 Observation Instrument for Early Reading Skills

No	Indicator	Sub Indikator	Observed Activities	Description
1	Early Reading	Recognizing letter symbols	1. Children recognize letter symbols through the alphabet maze	B, MB, BSH, BSB
		Recognizing initial letter sounds	2. Children identify the initial letter sounds of surrounding objects through the alphabet maze	BB, MB, BSH, BSB

	Understanding the relationship between sounds and shapes	3. Children understand the relationship between letter sounds and shapes through the alphabet maze activity.	BB, MB, BSH, BSB
	Identifying groups of objects with the same initial sounds or letters	4. Children identify groups of objects with similar initial sounds or letters through the alphabet maze activity.	BB, MB, BSH, BSB
	Reading their name	5. Children read their names through the alphabet maze activity.	BB, MB, BSH, BSB

Explanation of Notation:

BB: Belum Berkembang
MB: Mulai Berkembang
BSH: Berkembang Sesuai Harapan
BSB: Berkembang Sangat Baik

Table 3.3 Achievement Level Categories for Children

Interval	Category	Score
0-25	BB	1
26-50	MB	2
51-75	BSH	3
76-100	BSB	4

Normality Test

The Normality Test was performed using the Shapiro-Wilk method with the help of the SPSS program version 26. Form a hypothesis in testing normality:

H_a: Data comes from a normally distributed population.
H_0: Data does not come from a normally distributed population

The criteria for making a hypothesis decision based on P-value or significance (Sig) are as follows:

- If the sig < 0.05, then Ha is rejected, or the data is not normally distributed
- If the sig > 0.05, Ho is received, or the data is typically distributed.

After conducting a normality test using the SPSS version 26 application, significant values were obtained as follows:

Table 3.4 Normality Test

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelas	Statistic	df	Sig.	Statistic	df	Sig.
NilaiPretestposttest	pretest	.209	15	.076	.861	15	.025
	posttest	.311	15	.000	.853	15	.019

a. Lilliefors Significance Correction

Based on the normality test table conducted, it can be seen that the data is distributed normally; this can be seen in the acquisition of student scores with a significance level of 0.05, while the significance value obtained on the *pretest* is 0.025 < 0.05. The significance value on the *posttest* is 0.019 < 0.05 hypothesis decision-making criteria based on p-value or significance (sig). It is obtained that:

- The statistical Sig value (P-value) on the ***pretest*** **(initial test)** is 0.025, which is 0.025 > 0.05, then he is accepted, or ***the pretest*** **data (initial test)** is typically distributed.
- The statistical Sig (P-value) in the ***Posttest*** **(final test)** is 0.019 < 0.05, then ho is accepted, or ***the Posttest*** **data (final test)** is typically distributed.

Hypothesis Test (Test t)

Table 3.5 Test t to see the Application of *Maze* alphabet to Develop Children's Early Reading Skills in An-Nada State Kindergarten, South Aceh

No	Nama Anak	Pretest		Posttest		d	Md (d.2)	Xd (d-Md	Xd.2
		Jumlah Skor	Rata-rata	Jumlah Skor	Rata-rata	Posttest - pretest			
1	DPS	2	1	7	3,5	2,5	1,76	0,74	0,55
2	AFA	4	2	7	3,5	1,5	1,76	-0,26	0,07
3	FR	4	2	5	2,5	0,5	1,76	-1,26	1,59
4	HL	3	1,5	5	2,5	1	1,76	-0,76	0,58
5	FL	4	2	6	3	1	1,76	-0,76	0,58
6	MFF	3	1,5	7	3,5	2	1,76	0,24	0,06
7	MF	3	1,5	6	3	1,5	1,76	-0,26	0,07
8	MHF	2	1	7	3,5	2,5	1,76	0,74	0,55
9	MK	2	1	8	4	3	1,76	1,24	1,54
10	MKI	5	2,5	6	3	0,5	1,76	-1,26	1,59
11	MIF	2	1	7	3,5	2,5	1,76	0,74	0,55
12	ML	4	2	7	3,5	1,5	1,76	-0,26	0,07
13	SRN	2	1	7	3,5	2,5	1,76	0,74	0,55
14	M A	3	1,5	8	4	2,5	1,76	0,74	0,55
15	LN	4	2	7	3,5	1,5	1,76	-0,26	0,07
Jumlah		**47**	**23,5**	**100**	**50**	**26,5**			**8,934**
rata-rata		**3,13**	**1,57**	**6,67**	**3,33**	**1,76667**			

(Summation Using Microsoft Excel 2010)

The values in the table above are obtained using the following formula:

1. Calculating the Average Value of Gain (d)

$$Md = \frac{\Sigma d \Sigma d}{n \; n}$$

$$Md = \frac{26{,}526{,}5}{15 \quad 15}$$

$$Md = 1.76$$

2. Calculating the calculated value

$$t=\frac{Md}{\sqrt{\frac{\Sigma xd}{n\,(n-1)}}}\frac{Md}{\sqrt{\frac{\Sigma xd}{n\,(n-1)}}}$$

$$t=\frac{1,76}{\sqrt{\frac{8,93}{15\,(15-1)}}}\frac{1,76}{\sqrt{\frac{8,93}{15\,(15-1)}}}$$

$$t=\frac{1,76}{\sqrt{\frac{8,93}{15(14)}}}\frac{1,76}{\sqrt{\frac{8,93}{15(14)}}}$$

$$t=\frac{1,76\ \ 1,76}{\sqrt{\frac{8,93}{210}}\sqrt{\frac{8,93}{210}}}$$

$$t=\frac{1,76\ \ 1,76}{\sqrt{0,04}\sqrt{0,04}}$$

$$t=\frac{1,761,76}{0,2\ \ 0,2}$$

t=8.8

Hypothesis testing is carried out by comparing the t-test results (t-test) with the table using the acquisition of pretest and post-test *scores*. The value of the ttable is obtained by determining a value based on a significant level (0.05) with degrees of freedom (dk = n-1) so that through this method, the ttable is obtained as follows:

tTable dk = n – 1
dk = 15 – 1

dk = 14 (1.761)

Hypothesis testing was conducted to determine whether there was a significant difference between the pretest and posttest scores of children's reading skills after using the letter maze activity. The results showed that the calculated t-value was much higher than the critical t-value at a 0.05 significance level with 14 degrees of freedom. This indicates that the null hypothesis, which assumed no significant difference, was rejected, and the alternative hypothesis was accepted. These findings demonstrate that using the letter maze activity effectively enhanced children's

reading skills at TKN An-Nada, South Aceh. The activity helped children improve their ability to recognize letter symbols, identify initial sounds, and understand the relationship between sounds and letter shapes, making it a valuable method for early literacy development.

This research was conducted at An-Nada State Kindergarten, South Aceh, from 7 November to 14, 2023, using experimental research, one sample pretest, and a posttest design. The number of samples of 15 children, starting from Pretest, Treatment, and Posttest activities, was measured using an observation instrument sheet containing two indicators for pretest and posttest activities and 3 for treatment I to III. The data analysis technique used is a normality test using the Shapiro-Wilk method with SPSS version 26 and a t-test.

Based on the research conducted and obtained *pretest values,* treatment *will be carried out* on the l8 ladder to 13 November 2023 using three indicators of questions about children's initial reading ability consisting of 1) understanding the relationship between sounds and letter shapes, 2) mentioning groups of objects that have the same initial sound or initial letters and 3) reading their names.

In the *pretest* and *posttest* that have been carried out using 2 question indicators consisting of 1) recognizing letter symbols and 2) recognizing the initial letter sounds of surrounding objects, the following value comparisons are obtained:

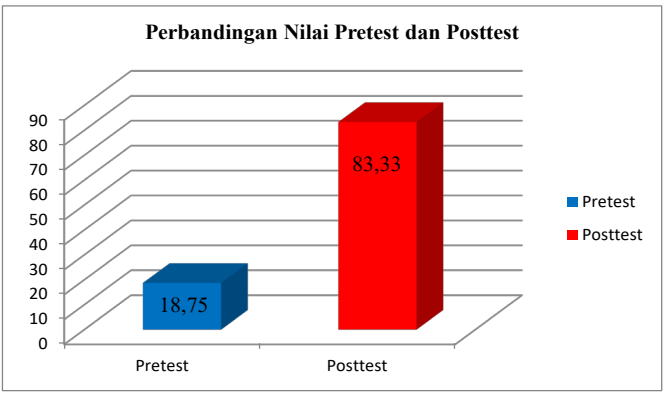

Figure 1. Pretest *and* Posttest *Value Comparison Graph*

So, based on Graph 1, the comparison between pretest and posttest scores with the acquisition of pretest scores of 18.75 and posttest 83.33 can be said to be a significant increase in values between the two activities. After obtaining the values from the pretest, treatment, and posttest, then the normality test and t-test data processing techniques can be carried out with the following results:

Based on the normality test that has been carried out, the significant value on the pretest is 0.025, and on the post-test is 0.019, then based on the criteria for making a hypothesis decision based on the p-value or significance (sig) data on the *pretest* and *posttest* are typically distributed. There was Ho's rejection and Ha's acceptance. Therefore, it can be said that the difference in values between a thing and a table can be concluded by applying a letter maze to develop early childhood reading skills in TKN An-Nada South Aceh. Activities like letter mazes improve reading outcomes, especially when integrated with ongoing assessment methods. Regular assessments allow educators to tailor activities to meet the specific needs of learners, ensuring that each child can progress at their own pace.

So, it can be concluded that the letter maze can be used to develop early childhood abilities. This is supported by similar research that discusses letter mazes that have been done previously and obtained the following results: based on the results of research conducted by Nurlaela, Ermi, and Lenny Nuraeni regarding *maze* games are effective in reminding KBS children aged 5-6 years, with *maze* games can increase children's interest in learning, students can also be directly involved in learning activities, so that learning is more interesting, fun and meaningful for children (Nurlela, et al., 2021) as well as research conducted by Rosidah, Laily with the results of research that showed an increase in children's visual intelligence through *maze* games with various modifications as much as 40.62%. In addition to improving visual intelligence, *maze* games can improve children's abilities. The actions given to group B children in *maze* games can be modified according to needs (Laily, 2014).

Another research said that the flow of writing can be said to be practical in children's fine motor development because it has met the completeness of the assessment in terms of ease of use and

safety of use and has also been fulfilled as well as the completeness of the assessment of fun for children. Every use of media and the effectiveness of the writing maze media on children's fine motor development has met the completeness of feasibility of 100% (Munawaroh et al., 2019).

As well as Jamaliah Hasballah, Dewi Fitriani, and Rita Sariani with research results that show that the feasibility of developing hijaiyyah maze media in the learning process in stimulating interest in reading iqra' in children has feasibility test results based on expert validation. So that the hijaiyyah maze media can be used in the learning process. The development of *maze* hijaiyyah media after field trials is to provide an initial understanding to children about Iqra reading interest and practical for use in learning, especially in stimulating iqra reading interest in children aged 4-5 years (Hasballah et al., 2021).

D. **Conclusion**

This study investigated the effectiveness of letter maze activities in enhancing early reading skills among children at TKN An-Nada, South Aceh. The main research question of whether applying alphabet maze activities can improve early childhood reading skills has been answered affirmatively. The results demonstrated a significant improvement in reading skills, with pretest scores averaging 18.75 and posttest scores increasing to 83.33. The gradual progression observed during treatments (43.28, 57.08, and 70.53) further supports the effectiveness of this approach. Statistical analysis confirmed that the improvement was significant, as indicated by the t-test results (count 8.8 > table 1.76131). The findings highlight the potential of interactive and playful methods like alphabet mazes to enhance young learners' literacy and cognitive and social development. This research contributes to the growing evidence that innovative and engaging learning activities can transform early education. Future studies should expand on this work by exploring the application of letter maze activities across diverse educational contexts and age groups. Additionally, longitudinal research could examine the long-term effects of such activities on literacy development. Practical recommendations include integrating letter mazes into early childhood curricula to provide a fun and

practical foundation for reading skills. By demonstrating the tangible benefits of letter maze activities, this study contributes valuable insights into early literacy strategies, paving the way for further innovation in early childhood education.

References

Aulia, A., et al,. (2022). *Interest in Play and Child Development*. Padang, West Sumatra: PT Global Executive Technology.

Berger, K. S. (2003). *The developing person through childhood and adolescence*. Macmillan.

Geertsen, S. S., Thomas, R., Larsen, M. N., Dahn, I. M., Andersen, J. N., Krause-Jensen, M., ... & Lundbye-Jensen, J. (2016). Motor skills and exercise capacity are associated with objective measures of cognitive functions and academic performance in preadolescent children. *PloS one*, *11*(8), e0161960.

Fransisca, E., & Vitaloka, A. (2022). The role of parents in children's early literacy skills in Banturung Village, Bukit Batu District. *Jurnal Pendidikan Ilmu Pengetahuan Sosial (JPIPS), 14*(1), 64–72.

Hartani, S. (2021). *The pleasure of Learning to Read Beginnings with Make A match*. Solo: Unisri Press.

Hasballah, J., Fitriani, D., &; Sariani, R. (2021). Development of *Maze* Hijaiyyah media to stimulate interest in reading iqra' in early childhood. *In ESTETIC: Education, Science, and Technology International Conference*. Vol. 1, No. 1, pp. 133-146).

Hidayat, A., A. (2015). *Quantitative Paradigm Research Methods*. Surabaya: Health Box Pblishing.

Ismail, F. (2018). *Statistics for Educational Research and Social Sciences*. Jakarta Kencana.

Lestari, M. (2019). *Play Maze Letters and Numbers*. Jakarta: Guepedia.

Munawaroh, A. U., &; Wijayanti, A. (2019). Development of Writing Maze Media on Fine Motor Development. *Journal of Modern Education*, 5(1), 12-21.

Muyassyaroh, I. (2021). *Improved Beginning Reading Skills with*

Tubakas Media. Jakarta: Micro Media Technology.

Nurlaela, E., &; Nuraeni, L. (2021). The influence of *maze* games in improving symbolic thinking skills in children aged 5-6 years. *CERIA (Smart, Energetic, Responsive, Innovative, Adaptive),* 4(2), 144-150.

Power, M. M. (2024). *Playing with Play: Considerations for Embedding Outdoor Play-Based Learning into the Early Years* (Master's Thesis, Trent University (Canada)).

Ramadan, R., Bina, N. S,. (2021). *Educational Research Statistics, Mathematical Calculation Analysis, and SPSS Applications*. Jakarta: Prenada Media.

Rosidah, L. (2014). Improvement of early childhood spatial-visual intelligence through *maze games*. *Journal of Early Childhood Education*, 8(2), 281–290.

Sholeh, M., Murtono, M., & Masfuah, S. (2021). The effectiveness of Google Classroom learning in improving students' reading literacy skills. *Jurnal Educatio FKIP Unma, 7*(1), 134-140.

Rusdianto, R,. (2015). *Learn Arabic at lightning speed*. Yogyakarta: Diva Press.

Reschly, A. L., & Christenson, S. L. (Eds.). (2022). *Handbook of research on student engagement*. Springer Nature.

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary educational psychology*, *61*, 101860.

Spencer, S. (2019). *Out of The Maze*. Jakarta: Flex Media Komputindo.

Sugiyono*, S.* (2013). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: CV. Alfabert.

Widyastuti, A. (2017). *Enterprising children love to read and write.* Jakarta: PT Elex Media Komputindo, Gramedia Group.

Zulianingsih, L., Khan, R. I., &; Yulianto, D. (2020). Word round media to improve early childhood reading skills. *SELING: Journal of PGRA Study Program*, 6(2), 115-122.