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The Influence of the Meronce Method on Children's Cognition and Creativity at SDN 40 Mandau

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A B S T R A C T

This study aims to analyze the effect of meronce method on students' cognitive and creativity at SDN 40 Mandau. The background of this research is based on the low cognitive and creativity of students. This research employed a quasi-experimental method with a pretest-posttest control group design. The research subjects consisted of two groups with a total of 40 children as subjects at the elementary school level of grade III at SDN 40 Mandau, namely the experimental group treated with the meronce method and the control group using the drawing method. The research instruments were in the form of cognitive tests and observation sheets, which were analyzed using parametric statistical tests (t-tests) to determine the differences in cognitive and creativity between the two groups. The results of the analysis showed a statistically significant difference between the experimental group and the control group, with students in learning using meronce method showed a higher increase in cognitive and creativity abilities. Therefore, it can be concluded that the application of the meronce method has a positive and significant effect on enhancing students' cognitive and creativity at SDN 40 Mandau.

Keywords: *Meronce Method, Cognitive, Cerativity*

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INTRODUCTION

Education is essentially carried out to facilitate the growth and development of children's potential as a whole. The development of children's potential includes various aspects in the field, namely religious, moral, cognitive, physical, motor, social-emotional, cognitive, language and art values optimally in a conducive and cooperative educational environment (Nurkhasanah & Indrawati, 2021). All of these aspects of development are integrated with each other and have an important role as a provision for children in the future. According to Romadhona (2018) Children are expected to be able to achieve optimal levels in each aspect of their development. One of the aspects of children's basic development is cognitive development (Sunarto, 2016).

Khadijah & Amelia (2020) states that cognition is the ability to learn or think to learn new skills and concepts, the ability to understand what is happening in the environment, and the ability to use memory and solve simple problems. In line with opinion Nursyamsiah et al (2019) The scope of development according to the child's age level in cognitive aspects includes learning and problem solving, logical thinking and symbolic thinking. According to Sunarto (2016) The goal of children's cognitive development is to develop the ability to process their learning gains, mathematical logic and knowledge skills, and the ability to sort and group. Based on the results of research conducted by Citra et al. (2023) shows that some children are not able to distinguish and group geometric shapes.

Based on initial observations made by researchers at SDN 40 Mandau on January 14, 2025, several problems were found, namely based on the level of cognitive achievement of

children aged 9 years and above. In fact, there are still many 3rd grade children at SDN 40 Mandau who are not able to distinguish and group geometric shapes, namely out of 20 students, 7 (35%) are not able to do so, 9 (45%) are able to do so with help, and the remaining 7 (35%) are able to do so without help. Related to learning at SDN 40 Mandau, learning in the classroom also still focuses on practice questions in package books because of the use of media that is less varied by teachers. Therefore, children are always given the task of doing practice questions. So that the assignment makes children feel bored, and the material delivered is not optimal.

In addition to the development of cognitive ability, the development of creativity skills is very important to be developed. According to Neneng *et al* (2022) If children's creativity is not developed, it will have an impact on children's intelligence and fluency in thinking skills. This is because the function of creativity development is to develop children's intelligence and ability to create a new product. According to Masganti (2016) Creativity is the ability that a person has to produce a new idea or product that has a usability value obtained through the process of imaginative activities or thought synthesis based on the combination of information and the formation of new patterns obtained from previous experiences. Susanto (2017) argues that creativity is the creativity of nature in a broad sense that combines thoughts, imagination, ideas, and satisfying feelings.

Based on several problems that have been described by Sari et al. (2020) That is, the lack of children's creativity in learning is due to school learning emphasizing more material memorization than problem solving or creative thinking. Activities such as art, music, or creative projects are often considered less important than academic subjects. Furthermore, children are rarely given the opportunity to experiment or try various approaches in completing tasks.

The same thing based on the initial observations made by researchers at SDN 40 Mandau on the aspect of creativity owned by children who are not fully developed, there are 8 (40%) students whose creativity has not been developed, as many as 6 (30%) who have not developed, in the learning carried out it turns out that they still have difficulties in developing creativity, this can be seen when children do the work of teachers, children still lack to explore and express with the media provided, Children are still hesitant in making their work, children still like to imitate the work of friends, and children often imitate the examples of teachers so that the work produced is less varied.

One of the ways that an educator can do to improve children's cognition and creativity to make learning more enjoyable, one of which is through the meronce method. According to Yunita & Syukri (2021) This meronce method is an activity of assembling objects using thread, rope or similar objects whose end result is a unique shape both in terms of color, size or shape. According to Romadhona (2018) Meronce can also be said to be a form of educational game that is simple, but very stimulating for children's cognition in playing and learning, various kinds of patterns that can be changed according to children's wishes. When knitting various shapes, children can train to think, understand and see how a rope can enter a small hole. This activity can hone children's patience in looking for problem solving. Backed by opinion Neneng et al. (2022) The purpose of Meronce is to train children's concentration, stimulate children's creativity, practice children's eye and finger coordination, get to know the concept of color and children's harmony

Based on the description above, the researcher wanted to see the influence of meronce activities carried out directly with children on children's cognitive and creativity. The purpose of this research is to determine the influence of the meronce method on children's cognitive and creativity at SDN 40 Mandau.

METHOD

The method used in this study is quasi-experimental with *a pretest-posttest control group design.* This study has two groups, namely the experimental group and the control group (Alpansyah & Hashim, 2021). Then these two groups were given a pretest to find out the initial

state before being given treatment, after being given treatment, then both groups were given a posttest to find out the difference in the child's ability after being given treatment (Dewi, 2013).

Table 1. Research Design

Classes	Pretest	Treatment	Postest
Eksperimen	O1	Meronce Method	O2
Controls	O3	Drawing Method	O4

Sources: Sukardi, 2014

There are two types of variables in this study, namely independent variables and bound variables. Where the free variables in this study were the meronce method for the experimental group and the drawing method for the control group. Then the variables tied in this study are children's cognition and creativity. The subjects of this study are 40 children at the elementary school level in grade III at SDN 40 Mandau.

Data collection in this study used test, observation and documentation methods. The test method uses data collection instruments in the form of questions and tasks given to respondents to obtain data on students' cognitive abilities. The observation method uses a data collection instrument in the form of *a checklist observation sheet* to obtain data on student creativity. The research data obtained consisted of pretest and posttest data on the variables of students' cognitive ability and creativity in the experimental group and the control group. The documentation method is used to obtain direct data from the research site in the form of lesson plans, photos of activities, attendance and data relevant to the research. The data analysis technique used was a parametric statistical test (t-test) to see the differences in cognitive and creativity between the two groups.

FINDINGS AND DISCUSSION

Research Results

The results of this study consisted of the results of the analysis prerequisite test and hypothesis test. Cognitive and creativity results data were analyzed using normality tests, homogeneity tests, and hypothesis tests using t-tests.

Data Pretest Dan Posttest Kognitif

The initial and final ability data used in this study were the percentage of pretest and posttest results of the cognitive variables of the experimental group and the control group.

Table 2. Children's Cognitive Percentage

No	Indicator	Experimental Group		Control Group	
		Pretest	Posttest	Pretest	Posttest
1	Know the shape: large and small	61%	86%	58%	74%
2	Linking the number symbol with the object	53%	85%	46%	64%
3	Shows geometric shapes (circles, triangles, squares)	56%	86%	49%	70%
	Average	**57%**	**86%**	**51%**	**69%**

Table 2 shows the average pretest and posttest results that the average pretest for the experimental group was 57%, while the average for the control group was 51%. The average pretest of the experimental and control groups was still in the low category. Meanwhile, the average posttest for the experimental group was 86% and the control group was 69%. This shows that the average pretest and posttest scores in the experimental group have increased quite far compared to the control group.

Creativity Pretest and Posttest Data

The initial and final ability data used in this study were the percentage of pretest and posttest results of the cognitive variables of the experimental group and the control group.

Table 3. Percentage of Children's Creativity

No	Indicator	Experimental Classes		Control Class	
		Pretest	Posttest	Pretest	Posttest
1	Children are able to express their desires/ideas by saying simple sentences	46%	93%	39%	63%

2	Children are able to express their desires/ideas in the form of meronce	41%	89%	40%	63%
3	Children are able to create different results from their peers	41%	93%	39%	60%
4	Children are able to tell their work	44%	88%	39%	56%
5	Children love to do meronce activities	43%	93%	39%	61%
6	Children are able to reclaim failed results	41%	91%	39%	58%
7	Children are able to have more than one	41%	89%	36%	58%
8	The child is able to complete the meronce he makes	46%	91%	44%	59%
9	Children show a sense of pleasure for their own work.	43%	93%	41%	59%
10	Children show a sense of pleasure in the work of others	41%	91%	40%	56%
Average		**42,7%**	**91%**	**39,6%**	**59,3%**

Table 3 shows the average pretest and posttest results that the average pretest for the experimental group was 42.7%, while the average for the control group was 39.6%. The average pretest of the experimental and control groups was still in the low category. Meanwhile, the average posttest for the experimental group was 91% and the control group was 59.3%. This shows that the average pretest and posttest scores in the experimental group have increased quite far compared to the control group.

Normality Test Results

The normality test is carried out to find out whether the existing data is normally distributed or not. The results of the normality test can be seen in table 4.

Table 4. Normality Test Results

Variabel	Classes	Saphiro-Wolf		
		Statistics	df	Sig
Cognitive	Pretest Experiments	0,169	20	0,107
	Posttest Experiment	0,201	20	0,077
	Pretest Control	0,183	20	0,117
	Posttest Control	0,224	20	0,057
Creativity	Pretest Experiments	0,181	20	0,064
	Posttest Experiment	0,175	20	0,170
	Pretest Control	0,196	20	0,095
	Posttest Control	0,164	20	0,442

Based on the results of the normality test, both groups had a significance value greater than the value of 0.05 (sig > 0.05). Therefore, it can be stated that the pretest and posttest data of both groups on cognitive and creativity variables are normally distributed.

Homogeneity Test Results

The homogeneity test was carried out to find out whether the research sample came from a homogeneous population or not. The results of the homogeneity test can be seen in table 5.

Table 5. Homogeneity Test Results

Variabel	Levene Statistics	df1	df2	Sig
Cognitive	0,044	1	38	0,836
Creativity	0,706	1	38	0,406

Based on the results of the homogeneity test, the two groups had a significance value greater than the value of 0.05 (sig > 0.05). Therefore, it can be stated that the pretest and posttest data of the two groups on cognitive and creativity variables are homogeneously distributed.

Hypothesis Test Results

The hypothesis test was carried out with the t-test. The data tested were the data of the cognitive and creativity posttest results of the experimental and control groups. The results of the t-test can be seen in table 6.

Table 6. T-Test Results

Independent Samples Test					
		Mean	Std. Error Deviation	df	Sig (2-tailed)
Cognitive	Equal variances assumed	3,500	0,368	38	0,001

	Equal variances not assumed	3,500	0,368	37,986	0,001
Creativity	Equal variances assumed	12,700	0,526	38	0,001
	Equal variances not assumed	12,700	0,526	37,139	0,001

Based on table 6, the results of the t-test on the cognitive variables were obtained, namely sig. (2-tailed) is 0.001. The significance results showed that the value was < 0.05, so Ho was rejected and H1 was accepted. The results of the t-test can be concluded that the meronce method has a significant effect on children's cognitive at SDN 40 Mandau.

The results of the t-test on the creativity variable were obtained results, namely sig. (2-tailed) is 0.001. The significance results showed that the value was < 0.05, so Ho was rejected and H1 was accepted. The results of the t-test can be concluded that the meronce method has a significant effect on children's creativity at SDN 40 Mandau.

Discussion

Based on the data analysis in table 2, it shows that students' cognitive abilities increase with the application of the meronce method to the learning process. Based on the t-test, it was found that the meronce method had a significant effect on the cognitive ability of SDN 40 Mandau students. This is in accordance with the opinion of Sunarto (2016) that meronce activities provide significant results and affect children's cognitive abilities.

The results of the research based on the test, teachers strive to develop students' cognition through meronce activities in grade IIIA. Meronce activity is an activity of arranging, assembling and combining objects in terms of shape, size and color using thread or rope to form a work (Yunita and Syukri, 2021). In this study, the teacher taught students to knit by uniting pieces of natural material one by one using a rope through a small hole. After determining the series, the teacher helps the child tie the rope to form a work in the form of a necklace or bracelet.

Teachers in the process of meronce prepare roncean materials that are unique and have many colors so that they can attract students' attention. According to Roostin (2021), the materials used for meronce can be from surrounding materials such as natural materials. Natural material media are materials that exist in the surrounding environment that are easy to find in daily life (Neneng, 2022).

According to Ulfah (2023), through this meronce activity, teachers can develop students' concentration skills, the ability to coordinate between hands and eyes, and train students' responsibilities in completing a work. At the time of menonce, students need practice and concentration when inserting the roncean into the hole correctly. In addition, meronce activities by sorting patterns of roncean materials can improve students' cognitive abilities.

Based on table 3, it shows that students' creativity increases with the application of the meronce method to the learning process. Based on the t-test, the results were obtained that the meronce method had a significant effect on the creativity of SDN 40 Mandau students. This is in accordance with research by Elya (2024) who concluded that meronce activities can increase student creativity.

The results of the research based on observations, teachers strive to develop students' creativity through meronce activities in grade IIIA. In the meronce activity, the teacher directs students to determine ideas about what they will ronce, such as choosing colors and adjusting the meronce pattern according to their liking. This meronce technique can train and increase students' creativity, where students are able to create ideas about shapes, colors and patterns and can practice problem-solving skills while doing the meronce technique. According to Masganti (2016), creativity is a person's ability to generate new ideas or products obtained through imaginative activities that include the formation of new patterns or a combination of information obtained from previous experiences.

In this study, students will always try to put ronce materials into the rope according to the pattern desired by each student. Students are free to express and convey their ideas/ideas in

compiling roncean. Meronce activities can develop students' flexibility, precision and creativity. This is in accordance with research by Neneng et al (2022) who said that meronce activities using natural material media can increase students' creativity well.

Based on the data analysis, it was concluded that there was a significant influence on the use of the meronce method on the cognitive abilities and creativity of SDN 40 Mandau children.

CONCLUSION

The meronce method is very effective in developing the cognitive abilities of SDN 40 Mandau children. The activity of menusing natural materials in various shapes and sizes can train children's cognitive abilities because children are trained to determine the size of objects, patterns and geometric shapes. So that the meronce method has a significant effect on children's cognitive abilities. The meronce method is also very effective in developing the creativity of SDN 40 Mandau children. Meronce activities can train children's creativity because children are trained to create ideas, hone their skills and children's flexibility in meronce. So that the meronce method has a significant effect on children's creativity. Based on the results of the research and discussion, it can be concluded that there is a significant influence on children's cognition and creativity through the meronce method at SDN 40 Mandau for the 2024/2025 school year.

REFERENCES

Alpansyah & Hashim, A. T. (2021). *Kuasi Eksprimen Teori dan Penerapan Dan Pengaruhnya Terhadap Keterampilan Berpikir Kritis dan Hasil Belajar*. Tanggerang: Pascal Books.

Citra, B. F., Laelia, N., & Moh, T. (2023). Analisis Masalah Perkembangan Kognitif Murid Dalam Penerapan Kurikulum Merdeka. *Jurnal Bimbingan Dan Konseling (E-Journal)*, 07(1), 53–60.

Dewi, Y. (2013). *Pengaruh Kegiatan Meronce Terhadap Perkembangan Kognitif Anak Di Tk Pertiwi Singopadu, Sidoharjo, Sragen Kelompok A Tahun Pelajaran 2012/2013*. (Doctoral dissertation, Universitas Muhammadiyah Surakarta)

Elya, dkk. (2024). Mengenalkan Kegiatan Meronce Pada Anak Usia Dini Sebagai Bentuk Pengembangan Kreativitas. Universitas Negeri Medan. *Jurnal Ilmiah Multidisiplin*, 2(9).

Khadijah & Amelia, N. (2020). *Perkembangan Fisik Motorik Anak Usia Dini*. Jakarta: Kencana

Masganti, S. (2016). *Psikologi Perkembangan Anak Usia Dini Jilid I*. Medan: Perdana Publishing.

Neneng, N., Haryono, M., & Sari, R. P. (2022). Upaya Meningkatkan Kreativitas Anak Melalui Kegiatan Meronce Menggunakan Media Bahan Alam Pada Kelompok B. *Journal Of Dehasen Educational Review*, 3(3), 77–82. https://doi.org/10.33258/joder.v3i3.3467

Nurkhasanah, I., & Indrawati. (2021). Pengaruh Kegiatan Meronce Terhadap Kemampuan Mengklasifikasi Pada Anak Kelompok B Di Tk Dw Diknas Kota Bengkulu. *Jurnal UPI*. 1(2), 71-76

Nursyamsiah, H., Cendana, T. P., Rohaeti, E. E., & Alam, S. K. (2019). Kemampuan Berpikir Simbolik Anak Usia Dini Pada Usia 5-6 Tahun. CERIA (Cerdas Energik Responsif Inovatif Adaptif). https://doi.org/10.22460/ceria.v2i6.p286-294

Romadhona. (2018). Hubungan Sebaya dan Permainan Tradisional pada Keterampilan Sosial dan Emosional Anak Usia Dini. Jurnal Obsesi: *Jurnal Pendidikan Anak Usia Dini*, 4(2), 1011. https://doi.org/10.31004/obsesi.v4i2.502.

Roostin, E. (2021). Upaya Meningkatkan Kemampuan Motorik Halus Anak Melalui Kegiatan Meronce Dari Bahan Alam Biji Hanjeli. *Paper Knowledge. Toward a Media History of Documents*, 3(2), 6.

Sari, K. P., Neviyarni, & Irdamurni. (2020). Pengembangan Kreativitas Dan Konsep Diri Anak SD. *Jurnal Ilmiah Pendidikan Dasar*, VII(1), 44–50. https://dx.doi.org/10.30659/pendas.7.1.44-50

Sukardi. (2014). *Metodologi Penelitian Pendidikan Kompetensi Dan Praktiknya*. Jakarta: Bumi Aksara

Sunarto. (2016). Pengaruh Meronce Manik-Manik Terhadap. *Jurnal PG PAUD Trunojoyo*, 3(2), 150–162

Susanto, A. (2017). *Pendidikan Anak Usia Dini*. Jakarta: PT Bumi Aksara.

Ulfah, Maria. (2023). Upaya Peningkatan Kemampuan Kognitif Anak Melalui Kegiatan Meronce Melalui Media Looseparts di TK Batu Pole. *Jurnal Pelita PAUD*. 7(2): 292-301.

Yunita, E., & M. Syukri. (2015). Peningkatan Kreativitas Melalui Metode Meronce pada Anak di Taman Kanak-Kanak Cita Sahabat Mulia Pontiana. *Jurnal PG-PAUD*. 5 (1): 1-1.