Jurnal Teknologi Pendidikan:
Jurnal Penelitian dan Pengembangan Pembelajaran
https://e-journal.undikma.ac.id/index.php/jtp/index

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

Enhancing Cognitive Development And Creativity Through "Tikasan" Loose Parts Media

Warning*, Muhajir
Dr. Soetomo University
***Email Coresponding Author :** likamutrofin331@gmail.com

Abstract: The aims of this study was to determine whether the "Tikasan" Loose Parts media can enhance cognitive development and creativity in Group B. The research employed a quantitative approach with experimental methods, utilizing a quasi-experimental design with a singular treatment model. The study population comprised children aged 5-6 years in Group B at Putra Bangsa Kindergarten. The experimental group included 15 children in Class B1 and 15 children in Class B2. This research differs from prior studies by incorporating a unique medium, "TIKASAN." Research data collection involved observation, documentation, and research instruments. Statistical analysis utilized parametric homogeneity tests. The results indicate that: 1) "TIKASAN" Loose Parts media significantly influences cognitive development in Group B; 2) "TIKASAN" Loose Parts media positively impacts creativity development in Group B; 3) Overall, "TIKASAN" Loose Parts media has an influence on both cognitive development and creativity in Group B.

Article History
Received: 16-11-2023
Revised: 29-01-2024
Published:.. 30-01-2024

Key Words :
Loose Parts, Cognitive, Creativity

How to Cite: Warning, W., & Muhajir, M. (2024). Enhancing Cognitive Development And Creativity Through "Tikasan" Loose Parts Media. Jurnal Teknologi Pendidikan : Jurnal Penelitian dan Pengembangan Pembelajaran, 9(1), 79-88. doi:https://doi.org/10.33394/jtp.v9i1.9666

https://doi.org/10.33394/jtp.v9i1.9666

Introduction

Early Childhood Education is an effort aimed at children from birth to six years of age which is done through providing educational stimuli to help physical and spiritual growth and development so that children have readiness to enter further education, (Law on National Education System, 2003). To encourage children's curiosity, teachers can create a manipulative play environment where they can explore, develop, test, and change their own creations and ideas. Playing with Loose Parts is one of the many activities that teachers create for students in the classroom. Materials that can be opened, taken apart, reassembled, carried, connected, moved, or put together, either alone or combined with other materials, are referred to as Loose Parts. The term Loose Parts refers to open-ended, manipulative play materials that children can use in a variety of ways, because children can play according to their ideas without following parent or teacher instructions and can be more inventive.

Learning prepared for the present era is experiencing the development of science and technology, which is continually evolving. Therefore, there must be adjustments to make changes in learning activities by keeping up with the current global developments. As a result, Early Childhood Education highly values creativity as there are many ways to encourage creativity in young children. Creative children can discover new things and

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

integrate old and new concepts, as a high aptitude in cognitive growth is creativity. Children who regularly engage in activities that incorporate movement, theatrical play, and visual arts can increase their creativity.

According to Nursakdiah (2021) (Nursakdiah, 2021), cognitive development is the change that occurs in a child's thinking, intelligence, and language to provide reasoning so that the child can remember and creatively devise strategies. Cognitive development is facilitated through instructional designs that are meaningful for children, one of which involves utilizing Loose Parts as a medium. This approach encourages children to explore all their capabilities, resulting in the emergence of diverse and unexpected creations from each individual. Various games that enhance creativity include playing with Loose Parts such as "TIKASAN" (abbreviation of *tutup botol plastik dan bekas kemasan*—plastic and recycled packaging materials). In this context, the researcher will use recycled bottle caps and cardboard found in our surrounding environment as the "TIKASAN" medium.

Based on the results of initial observations at TK Putra Bangsa Group B, it is evident that the cognitive development and creativity of the children has not progressed overall, indicating the need for a new teaching method that can enhance creativity based on the children's interests. This was observed when the teacher invited the children to conduct a simple experiment, boiling eggs with vinegar alternately. The children demonstrated a lack of cooperation and enthusiasm, indicating that they have not yet developed the patience to wait for their turn and a sense of curiosity. Furthermore, observing the children's perseverance during the task of painting eggshells using markers, many children did not complete the task due to easily becoming bored, limiting their opportunities for creativity. Some children did not finish their tasks, hindering their opportunity to train their problem-solving skills in daily life and develop creativity according to their talents and interests. Additionally, when the teacher invited the children to arrange blocks, many of them did not complete the task, feeling easily fatigued. Also, when asked to group objects according to numbers, the children were unable to do so. Another finding was that there is an excess of factory-produced Educational Play Tools in the classroom, causing the children to show little interest in exploring their surroundings. There is a lack of development in the children's creativity, hindering their ability to find reasons to be creative and shaping them to think creatively. Observing the children's activities in the institution, the researcher noted that the teachers lacked creativity in stimulating or designing play activities, leading to monotonous learning, and diminished the children's enthusiasm in completing play activities. Teachers have yet to utilize or make use of available items in the environment for play. Often, teachers provided magazines for children's assignments, and the management of the play area was not very attractive to the children. Previous research conducted by Nur Istim with the title "The Influence of the Use of Loose Parts Plastic Material Learning Media on Language and Fine Motor Development in Early Childhood Ages 5-6 Years" showed an impact on fine motor skills in children, indicating that different media can have influential results. Similarly, research by Nur Azza on the effectiveness of using Loose Parts media to improve the ability to recognize geometric shapes in Early Childhood at KB Al Masitoh Sukosono Kedung Jepara demonstrated that using Loose Parts as a media resulted in active and enthusiastic student participation in learning activities.

From the observation results, our institution has identified a lack of creativity among teachers in designing children's play activities, resulting in monotonous learning. Teachers often assign magazines for children's assignments, and the management of play areas lacks

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

elements that capture children's interest, leading to passive learning. The researcher has also encountered challenges in lesson planning, specifically in the limited readiness of teachers to plan effective lessons optimally. With the introduction of the Emancipated Learning Curriculum, it is anticipated that teachers will enhance their professionalism by expanding their knowledge, improving their mindset, and deepening their understanding of early childhood education studies. Additionally, it is hoped that the use of Loose Parts media, specifically "TIKASAN," can serve as a learning strategy that supports children in developing their imagination and creativity. This media can become an activity in the learning process, enabling children to participate in 21st-century learning. From the explanations above, the researcher aims to investigate whether the use of Loose Parts media, specifically "TIKASAN," can enhance cognitive development and creativity in Group B, both simultaneously and partially.

Research Method

This study employed a quantitative research approach with an experimental method. The research data utilized statistical formulas to aid in the analysis of the collected data and information (Hartono, 2011). The study focused primarily on the examination of numerical (quantitative) data processed using statistical techniques. The model adopted for this research was a quasi-experimental design with a single type of treatment.

The research design employed in this study is the pretest-posttest non-equivalent control group design (Sugiyono, 2015). In this design, it closely resembles the pretest-posttest control group design, with the key distinction that, in this design, both the experimental and control groups are not randomly selected.

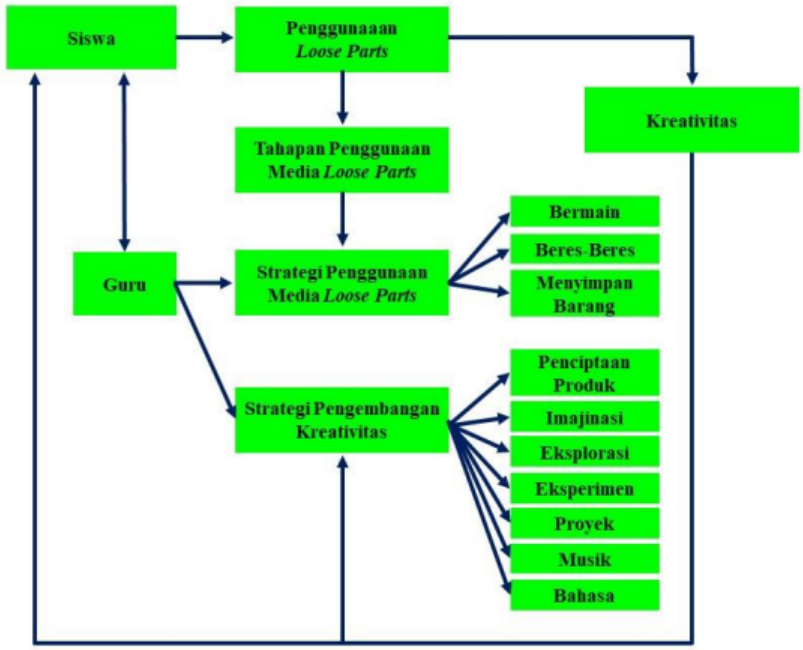

Figure 1. Research Flowchart

The population of this study comprises children aged 5-6 years in Group B at TK Putra Bangsa. The experimental group consists of 15 children in Class B1 and 15 children in

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

Class B2. Data for this research were collected through observation, documentation, and research instruments. The sampling technique employed was non-probability sampling, specifically using saturation sampling (census), a method of sampling where every member of the population is included as a sample (Ahmad S, Supriyanto, dan Masyhuri Machfudz., 2010).

Research instruments are tools utilized to measure the values of the studied variables. To ensure the success of the researcher, the collected data must be reliable (Sugiyono, 2015). The research instruments in this study include observation and documentation, along with a validation test serving as research tools. The subsequent data analysis involves validity, reliability, and discriminant power tests, followed by tests for normality of frequency distribution, homogeneity of variation, and hypothesis testing using an F-test with calculations conducted using *Software SPSS ver20.*

Result and Discussion

Research Description

The implementation of this quasi-experimental study involved two groups: the experimental group and the control group. The experimental group utilized the Loose Parts media "TIKASAN," comprising 15 children, conducted on Mondays and Thursdays, February 13 and 14, 2023, with one session lasting 120 minutes from 08:00 to 10:00 WIB. The control group used magazine media, also consisting of 15 children, conducted on Wednesdays and Thursdays, February 15 and 16, 2023, for one session lasting 120 minutes from 08:00 to 10:00 WIB, with the theme "Transportation," sub-theme "Land Transportation." In this study, the author served as the observer. The activities conducted during the planning phase of this research included preparing Weekly Lesson Plan, Daily Lesson Plan, creating assessment guidelines, preparing materials aligned with the competencies to be taught, and arranging the "TIKASAN" media (abbreviation of *tutup botol plastik dan bekas kemasan*—plastic and recycled packaging materials).

This study utilized several data collection methods, including observation, questionnaires, and documentation. The researcher employed the observation method to assess the implementation of play-based learning activities under the theme "Transportation," and sub-theme "Land Transportation," and to evaluate the impact of using Loose Parts "TIKASAN" on children's creativity and cognitive development. The questionnaire method was used by the researcher to determine the validity of the assessments made by the observer and whether they were suitable for evaluating observational activities by expert validators. The questionnaire presented assessment indicators for play-based learning activities, assigning values for children's creative abilities and cognitive development when using Loose Parts "TIKASAN." To assess the level of development in creativity and cognition, comparisons were made before and after utilizing Loose Parts "TIKASAN" under the theme "Transportation," sub-theme "Land Transportation."

Descriptive analysis was employed to observe the data in detail with the following descriptive indicators: (1) the average value of the data, (2) the minimum value of the data, and (3) the maximum value. The obtained results show that the average pre-test score for the experimental group is 2.7, while for the control group, it is 2.5. The minimum pre-test scores for both the experimental and control groups are 2.33. The maximum pre-test scores for both groups are 3. For the post-test results, the average score for the experimental group is 3.3, and for the control group, it is 2.8. The minimum post-test scores for both the experimental and

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

control groups are 2.67. The maximum post-test score for the experimental group is 4, while for the control group, it is 3.67.

In the cognitive development pre-test, differences were observed between the experimental and control groups. The cognitive development in the pre-test activities indicates that in the "Begin Developing" category, there is a 13.4% higher representation in the control group compared to the experimental group. Additionally, in the "Developing Very Well" category, there is a 13.4% greater difference in the control group compared to the experimental group.

However, in the cognitive development post-test for the experimental and control groups, significant differences were also observed in the observation results. The level of difference between the control group and the experimental group is significant. In the control group, there was a development in the "Begin Developing" category by 60%, while in the experimental group, it was 13.3%. On the other hand, in the "Developing Very Well" category, the control group exhibited a 60% development, whereas the experimental group showed a higher percentage at 73.4%. In the "Developing As Expected" category, the control group did not have any children in that category, whereas the experimental group had 13.3%.

A normality test was conducted to determine whether all variables were normally distributed. The Kolmogorov-Smirnov test formula was used in the calculations, with assistance from the SPSS 20.00 program. The normality criterion is met if $p > 0.05$, indicating normal distribution, and if $p < 0.05$, it is considered not normal. The results of the cognitive development pre-test for both the experimental and control classes, as calculated using SPSS, showed that the Sig. (2-tailed) value was 0.200, which is > 0.05, indicating that the data in both the experimental and control groups are normally distributed. This suggests that the questionnaires given to the subjects are proportionate for each element (Hartono, 2008). The results of the cognitive development post-test for both the experimental and control classes, as calculated using SPSS, showed that the Sig. (2-tailed) value was 0.047, which is > 0.05, indicating that the data in both the experimental and control groups are not normally distributed. This suggests that the questionnaires given to the subjects are not proportionate for each element (Hartono, 2008). Since the data is not normally distributed, further testing was conducted using non-parametric statistical tests (Mann-Whitney). Similarly, in the cognitive development post-test results for both the experimental and control groups, the Mann-Whitney non-parametric statistical test showed a Sig value of 0.015, which is < 0.05. This indicates that there is a difference in cognitive results between the control and experimental classes. Based on the rank table, it is evident that the average for the experimental class is 19.40, which is higher than the control class's average of 11.60. The table shows that the experimental class has an advantage and improvement in results compared to the control class, which appears to be lower.

After determining the level of data normality, the next step is to conduct a homogeneity test. The homogeneity test is used to assess the similarity of variances between two groups, namely the experimental and control groups. To accept or reject homogeneity, the Levene's statistic p-value is compared with 0.05 ($p > 0.05$). The homogeneity test results for the cognitive development pre-test in both the experimental and control groups, as conducted using SPSS, revealed a significance value (Sig) based on Mean of 0.291. Because 0.291 > 0.05 (0.291 is greater than 0.05), it can be interpreted that the pre-test data for both the experimental and control classes are from populations with the same variance (homogeneous).

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

The independent sample t-test in this research is conducted to determine whether there is a significant influence on the cognitive development of children in the experimental and control classes. The research hypotheses are as follows:

H_1: The use of Loose Parts Media "TIKASAN" has a significant influence on the Cognitive Development of Children

H_o: The use of Loose Parts Media "TIKASAN" does not have a significant influence on the Cognitive Development of Children

The decision-making criteria, with the assistance of SPSS 20 for Windows, are as follows:

a. If the significance value <0.05, then H_1 is accepted, and H_o is rejected
b. If the significance value >0.05, then H_0 is accepted, and H_1 is rejected

Here are the results of the independent sample t-test using SPSS 20 for Windows on cognitive development. The Hypotheses Testing for the Post-Test Data in the Experimental and Control Classes reveals the mean values obtained. In the Experimental Class, the mean Post-Test score for children is 13.53, while in the Control Class, the mean is 9.25. This indicates an influence of using Loose Parts Media "TIKASAN." The results of the Independent Sample t-Test on Post-Test Data for the Experimental and Control Classes show a significant value (2-tailed) of 0.000. Since the significance value 0.000 < 0.05 (0.000 is less than 0.05), it can be concluded that H1 is accepted, and Ho is rejected. Therefore, Loose Parts Media "TIKASAN" has a significant influence on the cognitive development of students. This is further supported by the mean values of the Post-Test scores in the experimental and control classes.

A normality test is conducted to examine whether all variables follow a normal distribution or not. The normality test utilizes the Kolmogorov-Smirnov formula for the pre-test calculations with the assistance of the SPSS 20.00 program. To determine normality, if p > 0.05, it is considered normal, and if p < 0.05, it can be deemed not normal. The calculation results for the pre-test data on learning outcomes in both the experimental and control classes yield a significance value (2-tailed) of 0.087. This means that p > 0.05, indicating that the data distribution in both groups is normal. Therefore, the number of questionnaires given to subjects is proportional to each element (Hartono, 2011).

A normality test is conducted to examine whether all variables follow a normal distribution or not. The normality test utilizes the Kolmogorov-Smirnov formula for the post-test calculations with the assistance of the SPSS 20.00 program. To determine normality, if p > 0.05, it is considered normal, and if p < 0.05, it can be deemed not normal. The calculation results for the normality test of post-test data on learning outcomes in both the experimental and control classes yield a significance value (2-tailed) of 0.200, which is > 0.05, indicating that the data distribution in both groups is normal. Therefore, the number of questionnaires given to subjects is proportional to each element (Hartono, 2011).

After determining the level of data normality, the homogeneity test is conducted to assess the similarity of variances between two groups, namely the experimental and control groups. To accept or reject homogeneity, the p-value is compared with Levene's statistic at 0.05 significance level (p > 0.05). The homogeneity test results for creativity post-test data in the experimental and control classes show a significant value (Sig) based on Mean of 0.004. Since 0.004 < 0.05 (0.004 is smaller than 0.05), it can be concluded that the post-test data in the experimental and control classes come from populations with different variances (not homogenous). However, when the research data is not homogenous, the output result

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

indicates equal variances not assumed. Therefore, the assumption is that the research data is not homogenous.

The independent sample t-test in this research is conducted to determine whether there is a significant influence on the creativity of children in the experimental and control classes. The research hypotheses are as follows:

H_1: The use of Loose Parts Media "TIKASAN" has a significant influence on the Creativity of Children

H_o: The use of Loose Parts Media "TIKASAN" does not have a significant influence on the Creativity of Children

The decision-making criteria, with the assistance of SPSS 20 for Windows, are as follows:

a. If the significance value <0.05, then H_1 is accepted, and H_o is rejected
b. If the significance value >0.05, then H_0 is accepted, and H_1 is rejected

The results of the independent sample t-test using SPSS 20 For Windows on the Hypothesis Testing of Post-Test Data in the Experimental and Control Classes reveal the mean values obtained in the post-test for the experimental and control classes. In the experimental class, the mean post-test score for students is 84.21, while in the control class, the mean score is 49.38. The Independent Sample t-Test on the Post-Test Data for the Experimental and Control Classes yields a significant value (2-tailed) of 0.000. Since the significant value is 0.000 < 0.05 (0.000 is less than 0.05), it can be interpreted that H1 is accepted, and Ho is rejected. Therefore, the use of the Loose Parts "TIKASAN" media has a significant influence on students' creativity.

Based on the results of the Independent Sample t-Test presented in Table 4.20, a significant value (2-tailed) of 0.000 is obtained. Since the significant value is 0.000 < 0.05 (0.000 is less than 0.05), it means that H1 is accepted, and Ho is rejected. Therefore, there is an improvement in cognitive development through the use of Loose Parts "TIKASAN." This is further supported by the mean values of the Post-Test in the experimental class and the mean values of the Post-Test in the control class, indicating an average increase of 4.28. Additionally, based on the results of the Independent Sample t-Test presented in Table 4.31, a significant value (2-tailed) of 0.000 is obtained. Since the significant value is 0.000 < 0.05 (0.000 is less than 0.05), it means that H1 is accepted, and Ho is rejected. Therefore, there is an increase in creativity through the use of Loose Parts "TIKASAN." This is further supported by the mean values of the Post-Test in the experimental class and the mean values of the Post-Test in the control class, indicating an average increase of 34.83.

From the above analysis, utilizing Loose Parts "TIKASAN" in cognitive development and creativity holds significant meaning. The use of Loose Parts "TIKASAN" proves to be impactful, contributing to an increase in both cognitive development and creativity in children. In other words, the utilization of Loose Parts "TIKASAN" has a positive influence on the cognitive development and creativity of children.

Discussion

In evaluating students' cognitive development, the researcher employed pre-test and post-test scores as data sources. The average pre-test score was then obtained, indicating the mean Post-Test score in both the experimental and control groups. In the experimental group, the mean Post-Test score was 13.53, while in the control group, it was 9.25. This signifies an improvement of 4.28. Furthermore, the obtained significance value (2-tailed) was 0.000. With a significance value of 0.000 < 0.05 (0.000 smaller than 0.05), it can be concluded that H1 is

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

accepted, and Ho is rejected. Therefore, Loose Parts "TIKASAN" has an influence on the cognitive development of children. This is further supported by the mean Post-Test scores in both the experimental and control groups, rejecting H0 and accepting H1. Hence, it can be inferred that there is an improvement in the cognitive development of students in the experimental group, indicating the influence of Loose Parts "TIKASAN" on cognitive development in Group B.

In assessing students' creativity, the researcher utilized pre-test and post-test scores as data sources. The mean Post-Test score in both the experimental and control groups was obtained. In the experimental group, the mean Post-Test score was 84.21, while in the control group, it was 49.38, indicating an increase of 34.83. The significance value (2-tailed) was 0.000, with 0.000 < 0.05 (0.000 smaller than 0.05). From the data above, it can be inferred that there is an increase of 34.83, meaning there is an improvement in the learning scores of children in the control group, rejecting H0 and accepting H1. It is evident that there is an increase in the learning scores of children in the experimental group, signifying the influence of using Loose Parts "TIKASAN" on creativity in Group B.

In the assessment of the influence of Loose Parts "TIKASAN" media on Cognitive Development, pre-test and post-test scores were utilized as data sources. The average pre-test score was obtained, and it was found that the mean Post-Test score in both the experimental and control groups. In the experimental group, the mean Post-Test score was 13.53, while in the control group, it was 9.25, resulting in an increase of 4.28. Similarly, in the evaluation of Loose Parts "TIKASAN" media on children's creativity, the pre-test and post-test scores were analyzed. In the experimental group, the mean Post-Test score was 84.21, compared to 49.38 in the control group. The data demonstrate an increase in both aspects, providing evidence that the use of Loose Parts "TIKASAN" media contributes to the enhancement of cognitive development and creativity in children.

Conclusion

The results indicate that: 1) "TIKASAN" Loose Parts media significantly influences cognitive development in Group B; 2) "TIKASAN" Loose Parts media positively impacts creativity development in Group B; 3) Overall, "TIKASAN" Loose Parts media has an influence on both cognitive development and creativity in Group B.

Acknowledgement

Praise and gratitude are extended to the presence of Allah SWT for all the blessings, mercy, and grace that have bestowed knowledge, experience, strength, patience, and opportunities upon the researcher, enabling the completion of this journal. However, the researcher acknowledges that without assistance and support from various parties, the preparation of this journal would not have proceeded smoothly. Until the completion of this journal, much time, effort, and thought have been generously contributed by many individuals. The researcher hopes that Allah SWT will reward all with all kindness in this world and the hereafter for their sincerity and goodness. It is the researcher's aspiration that this journal proves beneficial to all readers, particularly contributing to the development of the field of Educational Technology.

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

References

Abdul Haris dan Asep Jihad. (2012). *Evaluasi Pembelajaran.* Yogyakarta: Multi Pressindo.

Adkon dan Ridwan. (2009). *Rumus dan Data dalam Analisis Statistik untuk Penelitian.* Alfabeta: Bandung: cetakan 3.

Ahmad S, Supriyanto, dan Masyhuri Machfudz. (2010). *Metodologi Riset Managemen Sumber Daya Manusia.* Malang: UIN Malang Press.

all, A. M. (n.d.). Analisis Metaphorming Melalui Media Loose Parts Pada Anak Usia Dini Kelompok B Paud Unggulan Taman Belia Candi Semarang. 67.

all, E. P. (2022). Implementasi Pembelajaran Berbasia Alam dengan Loose Parts untuk Meningkatkan Kemampuan Kognitif dan Bahasa pada Anak TK. *Jurnal Basicedu*.

Anik Lestariningrum dan Intan Prastihastari Wijaya. (2020). Penerapan Bermain Loose Part Untuk Kemampuan Memecahkan Masalah Sederhana Anak Usia 4-5 Tahun. *PEDAGOGIKA Jurnal Ilmu Pendidikan 11, no 2*, 106.

Annisa Qonita Auliyalloh dan Anita Rakhman. (2020). Media Pembelajaran STEAM Untuk Meningkatkan Kreativitas Berbahan Loose Parta Di Kelompok B TK Kasih Ibu. *Jurnal Ceria 3 no 6*, 554.

Arikunto. (2013). *Dasar-Dasar Evaluasi Pendidikan.* Jakarta: Bumi Aksara.

Arikunto, S. (2010). *Prosedur Penelitian Suatu Pendekatan Praktik.* Jakarta : Rineka Cipta.

Arsyad, A. (2012). *PerencanaanPembelajaran.* . Bandung: PT. Remaja Rosdakarya.

Bahri, H. (2019). Pendidikan Islam Anak Usia Dini. *CV. Zigie Utami ; Bengkulu* , 1.

Basuki dan Ismet Hariyanto. (2014). *Asesmen Pembelajaran.* Bandung : PT. Remaja Rosdakarya.

Danim, S. (2002). *Menjadi Peneliti Kualitatif,* . Bandung Pustaka Setia.

Farida. (n.d.). Penggunaan Media Loose Parts Untuk Mengembangkan Kreativitas Anak Usia Dini Di PAUD AL-Musfiroh Gunungsindur Jawa Barat. 33-35.

Gunawan, W. M. (2018). Strategi Bercerita Kepada Anak. *CV Solusi Distribusi Yogyakarta*, 11.

Hartono, Metodologi Penelitian, Zanafa Publishing; Pekanbaru, 2011. HAW. Widjaja, Ototnomi Daerah Dan Daerah Otonom, Jakarta; Raja Grafindo.

Hidayah, Nurul. 2015. Pembelajaran Tematik Integratif Di Sekolah Dasar. Jurnal. Pendidikan Dan Pembelajaran Dasar, Volume 2, Nomor1, Juni 2022.

Kebudayaan, K. d. (2013). *Peraturan Mentri Pendidikan dan Kebudayaan Republik Indonesia Nomor 146 Tahun 2014 Tentang Kurikulum 2013 Pendidikan Anak Usia Dini.*

Kementrian Pendidikan dan Kebudayaan RI. (2020). *Panduan Pengelolaan Loose Parts.* Jawa Barat.

Kunandar. (2011). *Langkah Mudah Penelitian Tindakan Kelas Sebagai Pengembangan Profesi Guru.* Jakarta:Rajawali Pres.

Makmur dan Rohana Thahier. (2019). Inovasi Kreativitas Manusia . *Refika Aditama:Bandung*, 3.

Moeslichatoen. (2004). Metode Pengembangan di Taman Kanak-kanak. *Rineka Cipta: Jakarta, 2004*, 3.

Muqowin, I. a. (n.d.). Pengembangan Kreativitas Dan Berpikir Kritis Pada Anak Usia Dini Melalui Metode Pembelajaran Berbasis STEAM dan Loose Parts. “271-72.

Novi, M. (2019). Mengembangkan Kreativitas Anak Usia Dini . *PT. Remaja Rosdakarya : Bandung*, 11.

Januari 2024. Vol.9 No 1
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 79-88

Nursakdiah, e. a. (2021). Meningkatkan Perkembangan Kognitif Anak Melalui Pembelajaran STEAM dengan Menggunakan Bahan Loose Parts pada Anak Usia 5-6 Tahun di TKIT Syeikh Abdurrauf. *Jurnal Ilmiah Mahasiswa*, 3.

Praptiwi, L. (2021). *Penggunaan STEAM Pada Kegiatan Pendidikan Anak Usia Dini (PAUD) Untuk Melatih Kreativitas Anak Usia 5-6 Tahun Di Pendidikan Anaka Usia Dini (PAUD) Hang Tuah Kota Bengkulu.* Bengkulu.

Purnamawati, H. (2020). *Pengembangan Media Pembelajaran Flip BPengembangan Media Pembelajaran Flip Book Untuk Meningkatkan Belajar dan Prestasi Belajar Kognitif Sanitasi, Hygiene dan keselamatan Kerja Siswa Kelas x Jasa Boga SMK Negeri 6 Surabaya.* Surabaya.

Sabrina, M. (2021). *Pengaruh Media Loose Parts Terhadap Perngembangan Kreativitas Anak dikelompok B2 TK BINA ANAK BANGSA PALU.* Palu.

Sakdiah, L. (2018). *Kemampuan Mengenal Warna Pada Anak Usia Dini Berdasarkan Gender Menggunakan Media Pasir Berwarna Di RA Elkatarie Kembang Kuning Lombok.* Lombok Timur.

Sari, D. P. (2020). Kreativitas Pendidikan Karakter Di Keluarga Pada Pandemi Covid-19 . *Prosiding Seminar Nasional Hardiknas 1*, p. 109.

Siantajani, Y. (2021). *Loose Parts Material Lepasan Otentik Simulasi.* Semarang: PT. Sarang Seratus Aksara.

Sudjana, N. (2013). *Dasar-dasar Proses Belajar Mengajar.* Bandung: Sinar Baru Algesindo.

Sugiyono. (2013). *Metodelogi Penelitian Kuantitatif, Kualitatif dan R&D.* Bandung: ALFABETA.

_____. (2015). *Metode Peneltian Kuantitatif, Kualitatif, dan R&D.* Bandung: Alfabeta CV.

Sugiyono. (2018). .*Metode Penelitian Kuantitatif, Kualitatig, dan R&D.* Bandung : Alfabeta.

Sukardi. (2011). *Evaluasi Pendidikan Prinsip dan Operasionalnya.* Jakarta: PT Bumi Aksara.

Sukmadinata, N. S. (2006). *Pengendalian Mutu Pendidikan Sekolah Menengah.* Bandung: PT. Refika Aditama.

Sunarsih, T. (2018). Tumbuh Kembang Anak Implementasi dan Cara Pengukuran. *Bandung: PT Remaja Rosdakarya*, 3.

Tabrani, P. (2019). Kreativitas. *Bandung.ITB*, 56.

Undang-undang. (2003). *Tentang Sistem Pendidikan Nasional.* Jakarta.

Wiratna Sujarweni. (2014). *Metode Penelitian* . Yogyakarta: Pustaka Baru Press.

Yeni Rahmawati dan Euis Kurniati. (2019). Strategi Pengembangan Kreativitas pada Anak. *Kencana: Jakarta*, 89.

Zuriah, N. (2007). *Metode Penelitian Sosial dan Pendidikan.* Jakarta: Bumi Aksara Cet I

