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## IMPROVING CHILDREN'S CREATIVITY THROUGH ENVIRONMENTAL EXPLORATION ACTIVITIES

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### Abstract

This study aimed to increase children's creativity by exploring the natural surroundings of group A children at TK Tunas Dansari Dosay, Jayapura Regency. The subjects of this study were 15 children. This research is a classroom action research method using the action model from Kemmis and Mc Taggart. Data collecting was observation and documentation – data analysis using qualitative descriptive analysis. The results showed an increase in the creativity of group A children in TK Tunas Dansari Dosay. The research data showed that before the action, the average group value was 45.55%. After being given action cycle I, the average result was 55.55%; action II amounted to 63.33% and increased in action III 67.22%. In cycle II, an action I increased to 71.67%, action II increased to 75.55%, and action III increased to 81.10%. Based on these data, exploring the surrounding nature can increase the creativity of group A children at TK Tunas Dansari Dosay, Jayapura Regency.

**Keywords:** Nature; Child; Exploration; Creativity

### Abstract

*Penelitian ini bertujuan untuk memahami lebih lanjut dan mendapatkan kesimpulan dari penerapan kegiatan eksplorasi untuk lebih meningkatkan kreativitas anak. Partisipan dalam penelitian ini adalah anak usia 4-5 tahun (kelompok A) di TK Tunas Dansari Dosay Kabupaten Jayapura yang berjumlah 15 anak. Penelitian dilaksanakan pada semester 2 tahun ajaran 2020/2021 dengan waktu efektif pengumpulan data selama dua bulan (Januari-Februari 2021). Penelitian ini merupakan metode penelitian tindakan kelas dengan menggunakan model tindakan dari Kemmis dan Mc Taggart. Pengumpulan data menggunakan metode observasi dan dokumentasi. Analisis data menggunakan analisis deskriptif kualitatif dengan tidak mengabaikan data kuantitatif. Hasil penelitian menunjukkan adanya peningkatan kreativitas anak kelompok A di TK Tunas Dansari Dosay. Hal itu ditunjukkan oleh data penelitian sebelum tindakan, nilai rata-rata kelompok sebesar 45,55%, setelah diberikan tindakan siklus I diperoleh hasil rata-rata sebesar 55,55%; tindakan II sebesar 63,33%, dan meningkat pada tindakan III menjadi 67,22%. Pada siklus II tindakan I meningkat menjadi 71,67%, tindakan II menjadi 75,55%, dan tindakan III meningkat menjadi 81,10%. Berdasarkan data tersebut, dapat disimpulkan bahwa kegiatan eksplorasi alam sekitar dapat meningkatkan kreativitas anak kelompok A di TK Tunas Dansari Dosay Kabupaten Jayapura.*

**Kata Kunci:** Alam sekitar; Anak; Eksplorasi; Kreativitas

## Introduction

Early childhood is a time where many aspects of development happen at a quick pace. Because this is such a valuable age, it necessitates appropriate stimulation following its developmental elements. Early childhood education is a type of implementation of national education goals. Educators are expected to provide stimulation, guidance, care, and appropriate learning activities to develop cognitive, language, social-emotional, physical motor, religious and moral values, and art. It is critical since early childhood is the foundation for laying numerous elements of growth. According to (Apriani, 2017), early childhood is crucial in developing children's intelligence because children can absorb information exceptionally well at this age. The developmental foundation set at this age will significantly impact children's future growth (Sirjon, Mulyani, & Tamaruk, 2021), including the development of children's creativity. According to Erick Erikson, the age of three and a half to six years old is an elementary age for developing children's creativity. Erikson said that this age is a period of forming an attitude of initiative versus guilt (initiative is faced with guilt). Children who get an excellent nurturing and educational environment will be able to develop a creative attitude; enthusiastic about exploring, experiment, imagine and dare to try and take risks (Mariyana, 2008). According to (Sutini, 2013), the overall goal of early childhood education is to equip children to live in and adapt to their surroundings.

Early childhood education should provide opportunities for children to express themselves in various ways and through various creative media because (Marlina, Nuraida, & Rizal, 2019) believe that through free play activities, children will be able to explore and strengthen what they already know. They can even learn new concepts. Barnas went on to say that using games, imagination, and the natural environment as a learning environment to enhance children's creativity is a beneficial technique (Barnas, 2015). This viewpoint is similar to Holis, who believes that by engaging in activities that allow children to investigate everything, they would develop socio-emotional skills and their imagination, creativity, and cognitive abilities (Holis, 2002). Children's competence and creativity can be strengthened by investigating play activities, according to Ardiyanto (Ardiyanto, 2017). Even though it is still constrained and simplistic, children's creative potential can be expressed through pattern/drawing art, painting, music, dancing, shapes, and folding/origami. It is vital to have planned and systematic guidance and coaching from the instructor to improve children's creativity through expressive activities. Creativity is the consequence of one's ability to think of fresh ideas and concepts (Damayanti, Rachmatunnisa, Jakarta, & Parts, 2020). According to Munandar, creativity is defined as making discoveries in science and technology and other human activity sectors (Munandar, 2012).

Furthermore, according to Rohani, creativity is creating and applying new ideas to solve a problem (Rohani, 2017). Additionally, according to Priyanto, creativity is defined as collaborating on ideas and past results to produce meaningful work (Priyanto, 2014). Meanwhile, creativity is defined as developing new ideas or solutions to solve an issue (Tintia, 2018). Sit et al believe that creativity is defined as a person's ability to develop new ideas/ideas/products that are beneficial through imaginative activities or the synthesis of previous experiences (Sit et al., 2016).

From the viewpoints above, it may be inferred that creativity results from someone's capacity to collaborate between ideas or concepts with past findings to add value and create something new. Great curiosity is a sign of a child's inventiveness (Ubaidillah, 2018). According to Fauziani & Fatimah, the development of children's creativity must be tailored to their needs, abilities, and interests (Fauziani, 2017). As a result, education must give various stimuli to encourage children's creativity (Fauziah, 2013). The fostered creativity helps children improve on what currently exists and develop something entirely new (Nurjanah, 2020). Children's creativity will help them greatly, as mentioned by Pangastuti & Qumillaila since creativity will make life more dynamic (Pangastuti & Qumillaila, 2017). Being able to think and examine things from multiple perspectives is one of the traits of creative people (Tigas esa, 2015). According to Trisnawarsi, all children can be creative, nurtured via adequate schooling (Trisnawarsi, 2016). Children's imagination, inventiveness, and aesthetic sensibilities will grow successfully if they are provided appropriate direction and guidance from a young age. The instructor can assist children in developing their creativity by providing numerous strategies, methods, and appropriate learning methodologies and using educational game tools.

Researchers found that children's inventiveness was still poor based on their early observations at the Tunas Dansari Kindergarten in Kampung Dosay Jayapura. It is based on early research, which suggests that 11 out of 15 children have not yet developed their creativity, whereas four youngsters are beginning to do so. The application of learning that is still teacher-oriented and the lack of application of learning methods or approaches causes children to become passive in their learning. To solve these issues, we need a pleasant learning activity that will improve children's participation in learning and develop each child's creative power. Exploring the natural environment is alternative learning that might boost a child's active participation in learning. Exploration activities are a type of learning activity that involves visiting or exploring a location (Herni, 2018). This learning activity is much fun, and it has much promise for developing children's creativity. It is backed up by Gufron, who claims that solo exploration or exploration of something can spark creative thoughts (Ghufron, 2018). This viewpoint is similar to Nuryati & Yuniawati, who believe that active and exploratory learning activities are the most

effective strategy to boost children's creativity (Nuryati & Yuniawati, 2019). Exploration activities can provide opportunities for self-expression (Ririn Dwi Kusumastuti, 2019). Through exploration activities, children can use their five senses to distinguish distinct symptoms of items and events (Indari, Saguni, & Marwany, n.d.).

The previous study has extensively used exploration activities to boost children's creativity and other developmental elements. Firstly, Sumarsih investigated the pattern of improving children's creativity through exploratory activities, including old newspapers (Sumarsih, 2019). Secondly, Faizah looked at how exploratory activities might help youngsters appreciate the environment and independence and responsibility (Faizah, 2019). Third, Heldanita investigates how children's creativity might be boosted through environmental exploration activities (Heldanita, 2018). Next, Hidayati, Fahrudin, and Astawa investigated how children's creativity increased through old newspaper exploration activities (Hidayati, Fahrudin, & Astawa, 2017).

Moreover, Delima looks at how environmental exploration approaches might be used to improve children's science knowledge (Delima, 2017). The research mentioned above has not looked into increasing children's creativity through exploring the natural environment, particularly on the themes of recreation. Hence, researchers research to better understand and draw conclusions from the application of exploration activities to enhance children's creativity further. In addition, previous research did not examine the increase in children's creativity through exploring the natural surroundings. The research conducted by Heldanita is a literature review that does not make efforts to increase children's creativity directly in schools but only examines some literature related to creativity. So this research is different from previous studies.

## Method

Classroom action research is the research approach used in this study. Classroom action research is a reflective study carried out through a series of actions to enhance classroom learning methods professionally (Suharsimi Arikunto, 2010). The actions are based on Kemmis and Taggart's action model (planning, implementation, observation, and reflection). Actions are distributed in two cycles, each divided into six actions. Recreation is the overarching topic of the action, with sub-themes of mountains, river recreation, and ponds. Data were collected for two months (January-February 2021). Observation and documenting strategies are used to obtain data. The Observation Instrument was developed by the researcher based on the theory or concept referred to while still referring to the standard level of achievement for the development of children aged 4-5 years (group A).

Documentation is used to acquire records that support research findings, whereas observation is used to see/observe the rise in children's inventiveness in exploring the natural environment. The data processing and analysis technique utilized descriptive qualitative analysis while also taking into account the quantitative data. The researcher discusses the trend of growing children's creativity in this situation, starting with the initial observation, cycle 1 (activities 1, 2, and 3), and progressing to cycle 2 (actions 1, 2, and 3). (actions 1, 2, 3). Individual success indicators are set at 75%, while group success indicators are set at 80% (classical). The assessment criteria used is from (Suharsimi Arikunto, 2010) :

Table 1. Assessment Criteria

No	Level of Success	Predicate of Success
1	80 - 95%	Well-developed
2	70 - 79 %	Developing as expected
3	60 - 69%	Started to develop
4	50-59%	Undeveloped

The formula used to determine the percentage of success in this study (Arikunto, 2010: 44) is as follows:

$$P = \frac{f}{N} \times 100\%$$

Description:

F = Frekuensi of percentage searched

N = Number of cases (Individual numbers).

P = Percentage

### Results and Discussion

The preliminary observations show the following data:

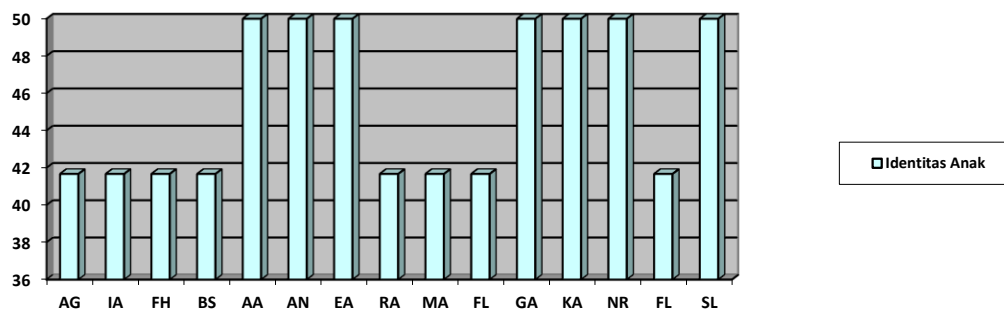


Figure 1  
Early Data on Children's Creativity

Figure 1 shows the low creativity of children in TK Tunas Dansari Kampung Dosay, where the average classical score only reaches 45.55%. However, if the value is converted into the assessment criteria specified, then classically, the child's creativity is still on the criteria of undeveloped (BB).

After the researchers carried out cycle I consisting of 3 actions, the children's creativity data were obtained as follows:

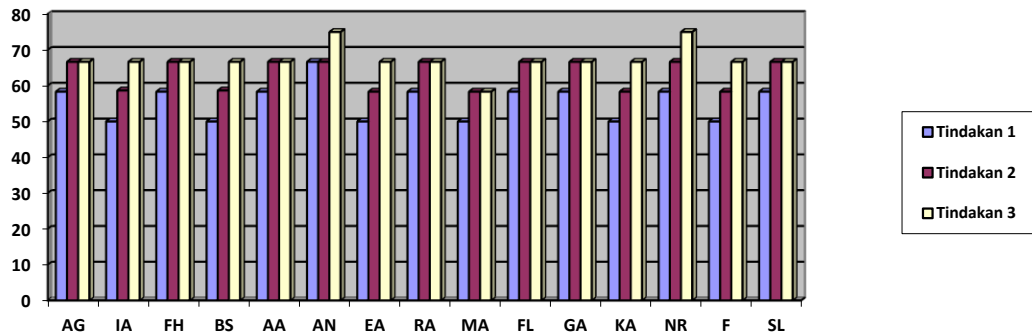


Figure 2  
Children's Creativity Data Cycle I

The data in table 2 provides information about the average increase in children's creativity in cycle I ranging from action 1 to action 3, whereas in action one, the cumulative average of children's creativity increased by 55.55% in action 2 to 63.33% and increased again in action 3 to 67.22%. The results showed an increase in children's creativity but have not yet achieved the criteria for success of actions either individually (75%) or classically (80%). Therefore the action is continued to cycle II.

Cycle II is implemented through 3 actions. The results of the study can be visualized through the following figures:

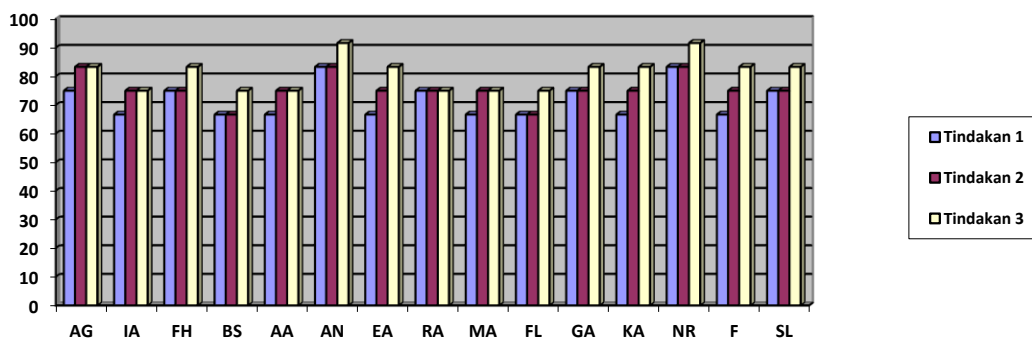


Figure 3  
Children's Creativity Data Cycle II

Figure 3 shows an increase in children's creativity cycle II ranging from action 1 to action three, wherein action 1, the average creativity of children by 1.67%

increased in action 2 to 75.55% and increased again in action 3 to 81.10%. Data provides information that the criteria for successful action have been achieved individually (75%) (80%). Thus the research action was declared successful and discontinued.

See the recapitulation of the increase in the overall child's creativity can be seen in table 2:

Table 2. Recapitulation of Children's Creativity Data

No.	name	Pre Cycle	Cycle I			Cycle II		
			T I	T II	T III	T I	T II	T III
1.	Ag	41,67%	58,33%	66,67%	66,67%	75%	83,33%	83,33%
2.	she	41,67%	50%	58,33%	66,67%	66,67%	75%	75%
3.	FH	41,67%	58,33%	66,67%	66,67%	75%	75%	83,33%
4.	Bs	41,67%	50%	58,33%	66,67%	66,67%	66,67%	75%
5.	Aa	50%	58,33%	66,67%	66,67%	66,67%	75%	75%
6.	AN	50%	66,67%	66,67%	75%	83,33%	83,33%	91,66%
7.	Ea	50%	50%	58,33%	66,67%	66,67%	75%	83,33%
8.	Ra	41,67%	58,33%	66,67%	66,67%	75%	75%	75%
9.	Ma	41,67%	50%	58,33%	58,33%	66,67%	75%	75%
10.	Fl	41,67%	58,33%	66,67%	66,67%	66,67%	66,67%	75%
11.	Ga	50%	58,33%	66,67%	66,67%	75%	75%	83,33%
12.	Ka	50%	50%	58,33%	66,67%	66,67%	75%	83,33%
13.	Nr	50%	58,33%	66,67%	75%	83,33%	83,33%	91,66%
14.	Fl	41,67%	50%	58,33%	66,67%	66,67%	75%	83,33%
15.	Sl	50%	58,33%	66,67%	66,67%	75%	75%	83,33%
<b>Average</b>		<b>45,55%</b>	<b>55,55%</b>	<b>63,33%</b>	<b>67,22%</b>	<b>71,67%</b>	<b>75,55%</b>	<b>81,10%</b>

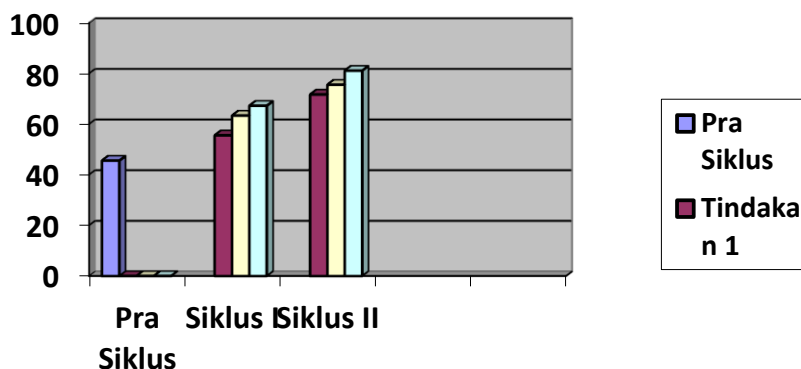
**Description:**

**TI** : Action 1

**TII** : Action 2

**TIII** : Action 3

The following is a diagram showing the pre-cycle progress, cycle 1 and cycle 2:



**Figure 4**  
Average Children's Creativity Data

Based on the data in table 2 and figure 4, obtained data is as follows: the average creativity of pre-cycle children only increased by 45.55% in cycle I action 1 to 55.55%, action 2 to 63.33%, and action 3 to 67.22%. The increase in children's creativity continues to increase in cycle II of action 1 to 71.67%, action 2 to 75.55%, and action 3 to 81.10%.

The research indicators of this research are as follows:

Table 3. Creativity Observation Instrument

No	Aspects Observed	Observation Indicator
1.	Being able to Recognize Various Colors, Shapes, Smells, Tastes, Sounds in the Surrounding Nature.	1. Children are able to recognize the color of green leaves and dry leaves 2. Children are able to form ships from leaves 3. Children are able to smell flowers and fruit smells 4. Children are able to feel the cold river water and the hot sun 5. Children are able to hear the sound of birds, river water, and the wind.
2.	Being able to feel the benefits of the natural surroundings for life,	6. Children are able to feel the benefits of plants 7. Children are able to feel the benefits of hot and cold air, 8. Children are able to benefit from animals 9. Children are able to feel the benefits of rivers, streams and ponds. 10. Children are able to feel the benefits of mountains and hills.
3.	Being able to make duplication of nature according to imagination and ability,	11. Children are able to make duplicates of dragonflies from leaves, 12. Children are able to make artificial trees, 13. Children are able to duplicate mountains and rivers, 14. Children are able to duplicate animals from wood branches and leaves, 15. Children are able to duplicate birds from the reeds/grass.

Children can already form ships from leaves, make duplicate dragonflies from leaves, make a tree, make duplicates of mountains and rivers, make duplicate animals from wooden twigs, and make duplicate birds from reeds/grasses. The results of this study prove that environmental exploration activities can increase children's creativity. This creating stage is the third stage in creative thinking; as Graham Wallas said that there are four creative thinking processes, namely preparation, incubation, illumination, and verification. (Rusdi, 2018). This finding is in line with the results of previous research, among others conducted by Sumarsih with the finding that exploration activities through the use of used newspapers can



increase children's creativity (Sumarsih, 2019). Findings Faizah, that exploration activities can foster the love of children to the environment, children become more creative and critical and foster an attitude of independence and responsibility to children (Faizah, 2019). Findings by Heldaanita that environmental exploration activities can stimulate children's creativity (Heldaanita, 2018).

Further findings Hidayati et al., that exploration activities through used newspapers can increase creativity in children (Hidayati et al., 2017). The last findings from (Pomegranate 2019) show that environmental exploration methods can improve children's science knowledge. This researcher's findings contributed positively to the topic studied that environmental exploration activities can develop independence, responsibility, and children's science knowledge and increase children's creativity. This environmental exploration activity has been proven to improve children's creative abilities, this is in line with Munandar's opinion which says that children's creative abilities can be improved through education, because creativity is the result of interaction between individuals and their environment. (Qurrota A'yuna, 2015). For this reason, children need to be given an environment that can support children to explore well. Because, through this environmental exploration, children's creativity can be formed properly.

## Conclusion

According to the previous action research (cycle II action 3), there were six children whose creativity improved as expected and nine children whose creativity developed exceptionally well. Individually, the criteria for the action's success have therefore been met. Classically, the conditions for the activity's success have been met by looking at the average value of children's inventiveness, which has reached 81.10 percent. As a result, it is believed that exploring the natural world can help youngsters acquire independence, responsibility, and scientific understanding while also enhancing their creativity, both individually and collectively. In light of these findings, it is suggested that PAUD teachers incorporate biological exploration activities into their lessons to increase children's creativity further. Other academics are also expected to conduct additional research on environmental exploration activities to benefit other development elements.

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