

## The Use Of Natural Leaf-Based Media To Improve Classification Ability In Children Aged 5-6 Years In The Integrated Paud Pelangi Saran Belimbing District, Melawi Regency

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### Abstract

*This study aims to describe the use of media made from natural leaves to improve classification skills in children aged 5-6 years at the Pelangi Saran Integrated PAUD, Belimbing District, Melawi Regency. The research method used is descriptive method in the form of action research. The subjects in this study were early childhood in group B. The research location was in Belimbing District, Melawi District, PAUD Terpadu Pelangi Saran. Data collection techniques used in this study were observation, interviews and documentation. The results of the study show that, The planning is carried out, namely preparing research instruments and Daily Learning Implementation Plans (RPPH) in the use of media made from natural leaves to develop classification skills, making a schedule for implementing learning, preparing media made from natural leaves to be used in learning activities. The implementation of this research was carried out through three cycles, using media made from natural leaves, carried out inside and outside the classroom. There was an increase from the three cycles with the use of media made from natural leaves to improve the classification abilities of children aged 5-6 at the Pelangi Saran Integrated PAUD, Belimbing District. Thus the use of media made from natural leaves to improve classification skills in children aged 5-6 years at the Pelangi Saran Integrated PAUD in Belimbing District has been well implemented.*

Keywords: *Classification, Media, Natural Leaves*

### 1. INTRODUCTION

Classification is a process of grouping or sorting something in sequence based on certain criteria, to train children to think logically, critically and analytically and make it easier to recognize the diversity of various kinds of objects. What is included in classifying activities is grouping the same objects or different objects, for example based on the same color, the same size, the same shape and the same function. Classification includes several types including single classification, plural classification and double classification. Single classification is an activity where children carry out classification activities based on 1 category only, for example based on color alone or based on size only. Double classification is an activity where children carry out classification activities based on 2 categories, for example color and size. Plural classification is an activity where children carry out

classification activities based on 3 categories, for example color, size and shape (Jayanthi et al., 2022).

To develop classification skills in children aged 5-6 years, researchers use natural media, natural media around the child's environment. According to Sumini in Ramadhan & Sofia (2018) "Natural media includes realia media, realia media is a real media, another name real object with the naked eye, touched, touched and created. The real media in the surrounding environment are flora, animals, rocks, sand, waters, soil, various goods, and everything that can be consumed" (Setyowahyudi, 2020). The use of learning facilities made from natural materials during learning supports the optimization of children's ability to group objects, in the research of (Fajarwati, 2020)"classifying through various facilities available in the environment is able to improve the ability to classify if you look again at the past when not using surrounding objects as a means of classifying objects, although not all children can do it, but this is influenced by conditions each child's psychology is different".

Based on the description above, media made from natural leaves can be used as a learning medium in an effort to optimize classification skills for children aged 5-6 years.

## **2. IMPLEMENTATION METHOD**

The researcher chose the classroom action research method. It is held per cycle, namely as many as three cycles (Sugiyono, 2019). The stages of the cycle are planning, implementation, observation and reflection. The subjects in the study were children aged 5-6 years at the Integrated PAUD Pelangi Saran, Belimbing District, Melawi Regency. The research site is the Pelangi Saran Integrated PAUD, Belimbing District, Melawi Regency. The collaborators of this research are the education unit: PAUD Terpadu Pelangi Saran Belimbing District, Melawi Regency, principal: Eva Yatri, S.Pd, class teacher: Eva Yatri, S.Pd, researcher: Susana Marlini. Using data collection techniques in the form of interviews, documentation and observations. Descriptive statistical analysis is an analysis that the researcher implements, research performance indicators can be shown with children being able to carry out activities of classifying single, double, plural. With the stages of BB, MB, BSH, and BSB capabilities. The indicators of research success can be seen through the children's ability to classify, the success rate is at least 80%, the success rate is moderate if it reaches 50-79%, the success rate is less if it reaches <50%. The implementation of the observation action will be on November 21-24, 2022 at 08.00-10.00.

## **3. RESULTS AND DISCUSSION**

### **Result**

**Learning planning with natural leaf-based media to improve classification skills in children aged 5-6 years**

Table 1. Cycle I planning

1) Learning planning instrument and determining the theme	plant and Sub theme	leaf deep
2) Scheduling	Activities (schedule that	created based on RPPH)
3) Design (RPPH)	Implementation Learning	Daily
4) Preparation of red begonia leaves (red, tall, triangle), puppet yam leaves (pink, high, triangle), jawer kotok flower leaves (purple, triangle, low), betel leaves (green, tall, round).		

In the planning of the first cycle of learning activities, there are several advantages that have been successfully achieved. Among them are the availability of learning planning instruments, the determination of the theme and subtheme to be used, as well as the determination of the learning implementation schedule and the preparation of the Daily Learning Implementation Plan (RPPH). In addition, the preparation of foliar media has also been carried out, which supports the smooth learning process. However, there are shortcomings that need to be addressed, namely the lack of planning regarding the availability of natural leaf-based media to be used. This shortcoming is an obstacle in supporting optimal learning activities. Therefore, the improvement that needs to be made is to increase the amount of foliar media used. With this step, it is hoped that planning in the next cycle can be more mature and support the achievement of learning goals more effectively .

Table 2. Cycle II planning

1) Schedule activities according to the RPPH
2) Designing a Daily Learning Implementation Plan
3) The provision of media from red begonia leaf plants (red, high, triangle) and red shoots (red, low, oval leaves), joker yam leaves (pink, tall, triangle) and puppet yam (pink, tall, triangle), jawer plants kotok (purple, triangle, low) and flame flowers purple, short, oval), betel leaf plants (green, tall, round), rambutan (green, short, round) and Genjer (green, tall, oval).

Learning planning in cycle II includes several important steps. First, activities are scheduled in accordance with the Daily Learning Implementation Plan (RPPH) that has been prepared. Second, the RPPH is designed by considering the needs and goals of daily learning. Third, the provision of learning media is also part of the planning, where the media used comes from various types of leaf plants, such as red begonias (red, high, triangle) and red shoots (red, low, oval leaves), joker yam leaves (pink, tall, triangle) and puppet yams (pink, tall, triangle), jawer kotok plants (purple, triangle, low) and fireworks (purple, short, oval), betel leaf plants (green, tall, round), rambutan leaves (green, short, round) and genjer leaves (green, tall, oval). In the implementation of learning planning in the second cycle, there are several advantages and disadvantages that are of concern. The advantages of this planning include making a clear schedule for the implementation of activities, preparing a structured RPPH, and preparing foliar media that has been carried out. However, there are shortcomings in the form of a lack of availability of foreign media used, which can hinder the learning process. To overcome this, the improvement step that needs to be taken is to increase the number of foliar media used, so that learning activities can take place more effectively and optimally.

Table 3. Cycle III planning

(1) Create a schedule based on RPPH
(2) Planning RPPH
(3) The necessary media is provided, namely observing the media in the environment around the school (cassava leaves (green, tall, oval), klempang leaves (green, round, low), joker yam leaves (pink, triangle, tall), yellow grass (yellow, round, short), flower leaves 9 (green, oval, tall), jawer kotok leaves (purple, short, triangle), red shoot leaves (red, oval, high).

In Cycle III planning, the first step is to prepare a schedule based on the Daily Learning Implementation Plan (RPPH) that has been set. Furthermore, RPPH planning is carried out carefully to ensure suitability with learning objectives. The media required for this activity was carefully prepared, including the observation of various leaves in the environment around the school, such as cassava leaves (green, tall, oval), klempang leaves (green, round, low), joker yam leaves (pink, triangle, tall), yellow grass leaves (yellow, round, short), nine flower leaves (green, oval, tall), jawer kotok leaves (purple, short, triangle), and red shoot leaves (red, oval, high). Reflection on the planning of learning activities in the third cycle shows advantages, including: making a clear schedule for the

implementation of learning, preparing a detailed RPPH, and preparing media in accordance with the needs of observation in the field.

**Pelaksanaan pembelajaran dengan menggunakan media berbahan alam daun untuk meningkatkan kemampuan mengklasifikasi pada anak usia 5-6 tahun.**

In the first cycle which was held on Monday, November 21, 2022, with the theme "Plants" and the subtheme "Leaves," the activity focused on sorting objects based on color, shape, and size. Children are introduced to the tools and materials available, then follow the teacher's explanation before starting to group objects into singular, double, and plural categories. Reflections show that learning outside the classroom with limited space makes it difficult for some children to see the media. For improvement, learning is planned to be carried out in the classroom with classification carried out in groups.

In the second cycle, which was held on Tuesday, November 22, 2022, a similar activity was carried out by grouping objects based on color, shape, and size. The change in method involves children advancing one by one to pay attention to the rides and existing attributes, as well as following the teacher's directions to group objects. The reflection showed an improvement in children's classification ability, as seen from the observation results that showed the number of children who succeeded in singular, double, and plural classification. However, weaknesses still exist in the implementation of classification activities that are carried out in groups in the classroom. The planned improvement is to carry out learning outside the classroom.

In the third cycle, which was held on Thursday, November 24, 2022, with the same theme, activities were directed outdoors to group objects based on color, size, and shape. The children toured the school area, comparing and classifying various plants, including cassava leaves, sling leaves, joker yam leaves, yellow grass leaves, nine flower leaves, jawer kotok leaves, and red shoot leaves. The results of the reflection show that the child's classification ability has reached 80%, with the advantage lies in his ability to compare and classify various leaves around the school. Activities carried out outdoors give better results compared to activities in the classroom.

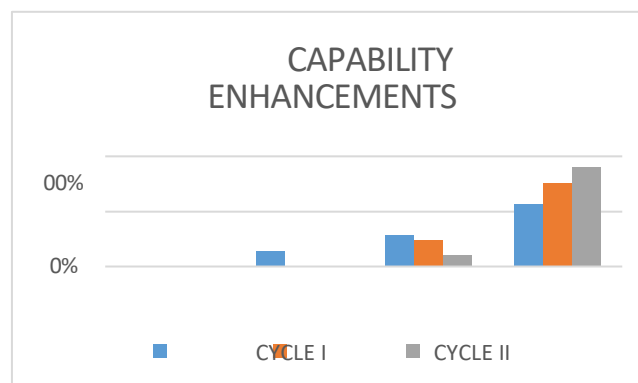
**Improvement of classification ability in children aged 5-6 years at Integrated PAUD Pelangi Saran, Belimbing District, Melawi Regency**

a. Improved single classification capability

Improvement of single classification ability from cycles I, II and III. Cycle I which was attended by 21 children, who were not yet developed (BB) as much as 0%; still

growing (MB) by 14%; developing as expected (BSH) by 29%; developed very well (BSB) by 57%. The development of single classification ability in cycle I is categorized as moderate, which is in the range of 50-79%. In the second cycle which was attended by 21 children, undeveloped (BB) 0%; still developing (MB) 0 %; developing as expected (BSH) 24%; developed very well (BSB) 76%. The ability of a single classification in cycle II is in the medium category, which is in the range of 50-79%. Single classification ability In the third cycle which was attended by 21 children, undeveloped (BB) 0%; still developing (MB) 0%; develop as expected (BSH) 10%; developing very well (BSB) 90%. The ability of a single classification in cycle III in the successful category is in the range of 80-100%.

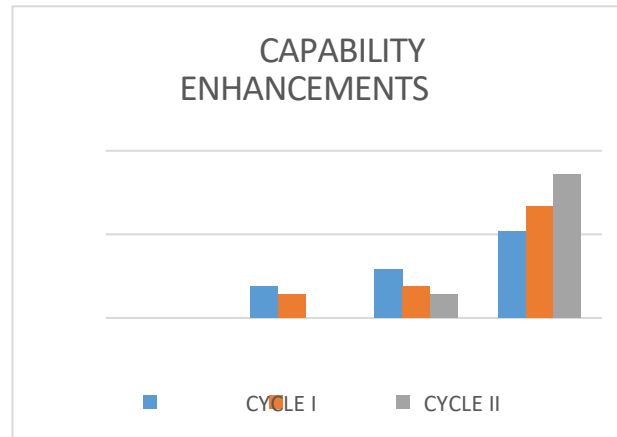
Figure 1. Improved single classification capability



b. Improved dual classification capabilities

Improvement of dual classification ability from cycles I, II to III. Cycle I which was attended by 21 children, who were not yet developed (BB) as much as 0%; still growing (MB) by 19%; developing as expected (BSH) by 29%; developed very well (BSB) by 52%. The development of dual classification capabilities in cycle I is categorized as moderate, which is in the range of 50-79%. In the second cycle which was attended by 21 children, undeveloped (BB) 0%; still developing (MB) 14%; developing as expected (BSH) 14%; developed very well (BSB) 72%. The development of dual classification ability in cycle II is categorized as moderate, in the range of 50-79%. The ability to double classify in cycle III which was attended by 21 children, has not developed (BB) 0%; still developing (MB) 0%; developing as expected (BSH) 18%; developed very well (BSB) 86%.

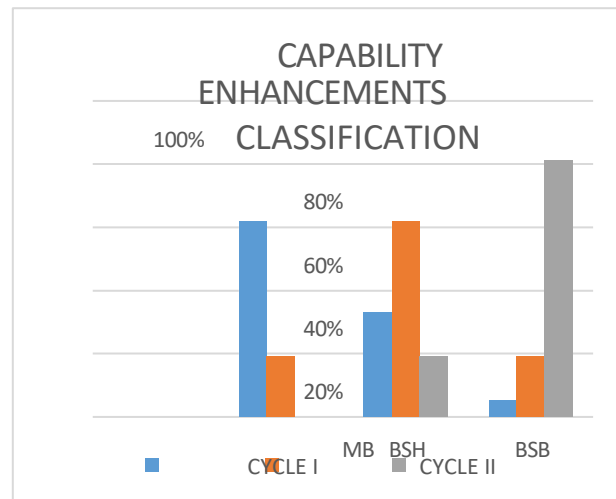
Figure 2. Improved dual classification capabilities



c. Improved plural classification capabilities

Improvement of plural classification ability from cycles I, II to III. Cycle I which was attended by 21 children, who were not yet developed (BB) as much as 0%; still growing (MB) by 48%; developing as expected (BSH) by 33%; very good development (BSB) by 19%. The ability to classify plurals in cycle I is categorized as lacking, namely the range of <50 %. In the second cycle which was attended by 21 children, undeveloped (BB) 0%; still developing (MB) 19%; developing as expected (BSH) 43%; very well developed (BSB) 38%. The development of plural classification ability in cycle II is categorized as lacking, namely the range <50%. The development of plural classification ability in cycle III which was followed by 21 children, has not developed (BB) 0%; still developing (MB) 0%; developing as expected (BSH) 19%; very good development (BSB) 81%.

Figure 3. Improved plural classification capabilities



Reflection on the improvement of classification ability in cycle III children have been able to classify single, double, and plural using natural media made from natural leaves correctly, shown by as many as 81% of children whose classification ability is developing Very Good and 19% of children whose classification ability developed as expected. Based on the provisions of the success indicators of this study, children's ability to classify is categorized as successful at least 80%. Based on the results of these reflections, it can be concluded that the use of natural leaf-based media can improve classification ability in children aged 5-6 years.

## Discussion

### Learning planning with natural leaf-based media to improve classification skills in children aged 5-6 years

The planning in this study was prepared for 3 cycles. From these three cycles, the researcher concluded that the best media planning is to use natural media directly (realia media) that is available around the school environment, namely by an environmental approach, where students are invited to face directly with the surrounding environment where they will find reality and things that may happen in the surrounding environment (Setyani et al., 2023).

### The implementation of learning using natural leaf-based media to improve classification skills in children aged 5-6 years



The research was carried out in 3 cycles. This research was carried out until cycle 3 because it had obtained results that were in accordance with the expected criteria, which reached 81%. The results of good research implementation were obtained, which were carried out outside the classroom because children could observe and get different experiences (Nurhayani & Sit, 2024).

**Improvement of classification ability in children aged 5-6 years at Pelangi Saran Integrated PAUD, Belimbing District, Melawi Regency.**

- a. Improvement of single classification ability through natural leaf-based media in children aged 5-6 years at Pelangi Saran Integrated PAUD, Belimbing District, Melawi Regency

The ability of single classification has improved from cycles I, II and III. The increased single classification ability through the natural medium of leaves based on the same color category, based on the same size category and based on the same shape. The ability to classify a single is that children group leaves based on the same color, group leaves based on the same shape, group based on the same size. The use of natural leaf media used in cycle I is the lack of availability of leaf media. In Rahmat, S. T. (2018) "According to Vygotsky, there are four general principles of learning in children, one of which is that children construct knowledge will be easier if richer and more varied tools of mind are available". This means that in the context of this research, the media used needs to be more in order to make it easier for children to build knowledge, especially the ability to classify singles (Prमितasari & Nurfitriah, 2024).

In cycle II, the same problem as cycle I was still found, namely the media used to develop single classification abilities was still constrained by the availability of media. However, in cycle III, media is unlimited, media choices are unlimited and reduce damage to plants and children get hands-on experience and fun learning, Yildirim, G & Akamca, G in Ratnasari, E. M. (2020) "Reveals that using outdoor learning activities can develop children's cognitive, physical, motor and social-emotional abilities".

- b. Improvement of dual classification ability through natural leaf-based media in children aged 5-6 years at Pelangi Saran Integrated PAUD, Belimbing District, Melawi Regency

The ability to classify multiple has improved from cycles I, II and III. The ability to double classify is that children can group leaves based on the same color and size, which means that children can classify objects based on 2 different attributes. Later, so that children can think logically and have the ability to solve problems in their later life, that is, children can recognize and group something different so that they can find relationships from the same attributes or also eliminate them. According to Piaget in Yusnita (2020, p.29), the ability to

double classify is to classify based on two aspects, for example color and shape. What happened in cycle I related to the ability to double classify was that after the teacher explained and the children classified the leaves in 2 categories of color and size, there were 48% of children who had not reached the very well developed category (BSB), this was shown that 19% of children were not able to classify in the sense that they still needed to be guided by their teachers. Meanwhile, 29% of children are able to do it independently and consistently but have not been able to help their friends. In the first cycle, the classroom conditions were less conducive which was characterized by a chaotic atmosphere where children who were included under the BSB category played by themselves and played whatever was in the classroom while waiting for their turn (Qisthiyah Azka et al., 2022).

- c. Improvement of plural classification ability through natural leaf-based media in children aged 5-6 years at Pelangi Saran Integrated PAUD, Belimbing District, Melawi Regency

The ability to classify plurality increased in cycles I, II and III. Plural classification skills are that children can group leaves based on the same color, size and shape which means children can classify objects based on 3 different attributes. What happened in cycle I related to the ability to classify plural is that after the teacher explained and the child classified the leaves in 3 categories of color, size and shape, there were 81% of children who have not reached the very well developed category (BSB), this is shown that 48% of children have not been able to classify in the sense that they still need to be guided by their teachers. Meanwhile, 33% are independent and consistent but have not been able to help their friends. In the first cycle, what happened was that there were still many children who were helped by their teachers and also the atmosphere in the classroom was not conducive (Rahma et al., 2024).

There were 10 children who could not classify the plural, which was seen by the child researcher who looked silent while his eyes looked right and left when asked to classify the plural. What happened in the second cycle was that 62% of children had not reached the category of very good development (BSB), this was shown by 19% of children who were not able to classify in the sense that they still needed to be guided by their teachers. Meanwhile, 43% of children are able to do it independently and consistently but have not been able to help their friends. There were 19% or 4 children who looked silent and looked right and left when asked to classify the plural and needed help from the teacher, but there were 8 children who were able to help their friends who had difficulty classifying the plural (Rahmawati, 2020).

Furthermore, in cycle III, the ability to classify plurality has been categorized as successful because it achieved a result of 81%. In cycle III, the classification activity was carried out outside the classroom and marched around the school environment, the children

looked happy and the children were able to do plural classification without the help of the teacher. What happens in the cycle III, what the researcher sees is that the child seems to be willing to wait for his turn and wants to Pay attention to the friend in front who gets a turn to classify the plural. Based on these results, it can be concluded that the implementation of cycle III is in accordance with what is expected so that the action ends in the implementation of cycle III. This is in line with the opinion of Qisthiyah, A., Malika, S. A., Maharani, Z., & Hasanah, L. (2022) who said that "there is an intermediary of natural facilities around, children will be given real examples and not represented by other media during the implementation of learning (Susanti, 2022).

#### 4. CONCLUSION

Based on the results of research and discussions that have been carried out regarding the use of natural leaf-based media in optimizing classification abilities in 5-6-year-old children at the Integrated PAUD Pelangi Saran Belimbing District, it can be concluded that natural leaf-based media has significant effectiveness in the learning process. The use of this medium is not only attractive to children but can also facilitate learning in a more fun and interactive way. Leaf-based media provides a direct and relevant learning experience, making it easier for children to understand and apply the concept of classification. The variety of shapes, colors, and sizes of leaves used in the media creates visual and tactile stimuli that support the learning process, making children more excited and involved in activities. Thus, the use of natural leaf-based media has proven to be effective in improving children's classification skills, making it a useful and innovative method in early childhood education.

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