

SELING

Jurnal Program Studi PGRA

ISSN (Print): 2540-8801; ISSN (Online):2528-083X

Volume 5 Nomor 2 Juli 2019

P. 103-111

THE ENHANCEMENT OF SCIENCE IN CHILDREN THROUGH B4 GROUP VEGETABLE PLANTING ACTIVITIES ON ODD SEMESTER AT PERTIWI KINDERGARTEN METRO STUDYING YEAR 2017-2018

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Abstract: This research was conducted to find out the extent of the benefits of growing vegetables to increase the science recognition of children in the Pertiwi Metro Kindergarten B4 group. The problem discussed in this research are the benefits of growing vegetables to increase science recognition to children in group B4. This research uses Classroom Action Research (CAR) with 2 cycles. Each cycle there are 4 stages: planning, action, observation, and reflection. The object of the research was carried out at the Metro Pertiwi Kindergarten 2017-2018 Academic Year. The data collection tool used in this research was direct observation with the steps of data collection, data analysis, and drawing conclusions to find out the benefits of growing vegetables to increase science recognition in children and analyzed descriptively. This research is expected to have impact children are more capable, more conscientious, happier and more confident in following the learning process. especially in the introduction of science.

Keywords: Improvement, Children's Science Introduction, Vegetable Growing Activities

Submission	Revised	Publication
03 January 2019	15 May 2019	30 June 2019

BACKGROUND

Quality of improvement in various types and levels of education including kindergartens and primary schools is the focus of educational development at this time and in the future period. Early childhood education is a coaching effort aimed at children from birth to the age of six years which is carried out through the provision of educational stimuli to help physical and spiritual growth and development in order to have readiness in entering further education. These goals are the main objectives in the process of organizing learning that emphasizes the development of national values, culture, and character (Setiawan & Sulistiani, 2019).

Early childhood education is carried out through formal, non-formal or informal education channels (Ministry of National Education, 2010). Specifically in the 2004 Curriculum for Early Childhood Education (hereinafter abbreviated as PAUD) stated the purpose of early childhood education in kindergarten is to help students develop a variety of potential both psychological and physical including moral and religious values, social, emotional, cognitive, language, physical/motor, independence, and art to be ready to enter primary education (Dea & Setiawan, 2019).

To achieve these objectives the scope of the curriculum is integrated into two areas of development, namely the field of developing behavioral formation and the field of basic ability development (Dewi, 2014). The field of basic skills development is an activity prepared by the teacher to improve abilities and creativity in accordance with the stages of child development, including language, cognitive, physical / motor, and arts. Cognitive itself is to develop children's thinking ability to be able to process their learning gains so that they can find various alternative solutions to problem-solving, helping children to develop mathematical logic abilities and scientific abilities (MONE, 2010).

Science subjects are not listed in the kindergarten curriculum, but that does not mean that science does not exist in kindergarten. Because curriculum is a system of education to have good learning outcomes by analysing, processing and also evaluating (Aziz, 2017). Moreover, Science in kindergarten remains and is integrated with other fields in almost every theme. The introduction of science to kindergarten children if done correctly will gradually develop logical thinking skills that children do not yet have. One approach that is widely used in the introduction of science in kindergarten is the observation approach. This approach does not aim to teach a scientific concept to children but rather invites children to explore natural phenomena through direct interaction with objects. Children practice observing, manipulating objects, measuring, classifying objects, conducting simple experiments, and proceeding to construct knowledge in accordance with the mindset that is still syncretic (MONE, 2006).

The purpose of developing science learning for children is so that children have the ability to solve the problems they face through the science process method, improve the ability of science in children, the child is expected to have a scientific attitude and hopefully children are more interested in living science. But in reality on the ground, children are now less interested in science. Learning science in kindergartens, in general, is still in the form of concepts and memorization that is limited to science products such as teaching about the solar system: the moon, stars, etc., not teaching the process science. That will make children fear science. Besides that, from observations in kindergartens science learning is still centered on the teacher so that children's attention becomes unfocused because children are not invited to be directly involved in the scientific process. Children must be taught how to feel, experience, and try various natural phenomena. Because activities related to this experiment will stimulate children's creativity. Children will also learn to dare to try. A mental trait that is now very valuable and rare in the adult world.

RESEARCH METHODS

This research used classroom action research (CAR). Classroom action research is practical research that is intended to improve classroom learning. This research is collaborative because researchers work closely with other class teachers in implementing the learning process. Parties who take action are class teachers, while those who observe the ongoing process of action are researchers (Arikunto, 2007: 98).

The relationship between the three stages is a spiral cycle. If the implementation of the initial action (cycle I) there are deficiencies in the planning and implementation of the action, then the next cycle can be improved so that the desired target is achieved. However, if the next cycle has met the success target, then the research is stopped, (Arikunto, 2007: 17).

This class action research was conducted in 2 (two) cycles. Each cycle includes planning, implementation, observation, and reflection. In cycle I, the teacher determines the themes / sub-themes and indicators of activities to be carried out, then the teacher prepares the media or teaching aids to be used in cycle I. In this case, the teacher prepares an observation sheet. The teacher evaluates using the observation sheet by looking directly at the behavior and learning outcomes throughout the learning process.

In cycle II, the teacher determines the themes / sub-themes and indicators of the activities to be carried out, then the teacher prepares the media or materials to be used. In this second cycle, the teacher uses the observation sheet to observe children's science activities by growing vegetables. The teacher evaluates through observation by looking directly at the behavior and learning outcomes throughout the learning process.

Data collection techniques used by researchers in conducting this research is to use observation sheets or observations and documentation. These observations and documentation are carried out by the teacher by looking directly at the behavior and learning outcomes throughout the learning process.

The data of this study were obtained by using the technique of assigning tasks and evaluating the performance of children when children plant and care for vegetable crops. After the data is obtained, it is classified according to predetermined criteria.

The symbol	Information
*	Undeveloped
**	Start to develop
***	Grow according to expectations
****	Very well developed

The data obtained were analyzed using a simple statistical formula, namely the percentage with the formula (Setiawan, 2018) :

$$P = x \times 100\%$$

Information ;

P = percentage number

F = children who have finished learning

N = Number of students

RESULTS AND DISCUSSION

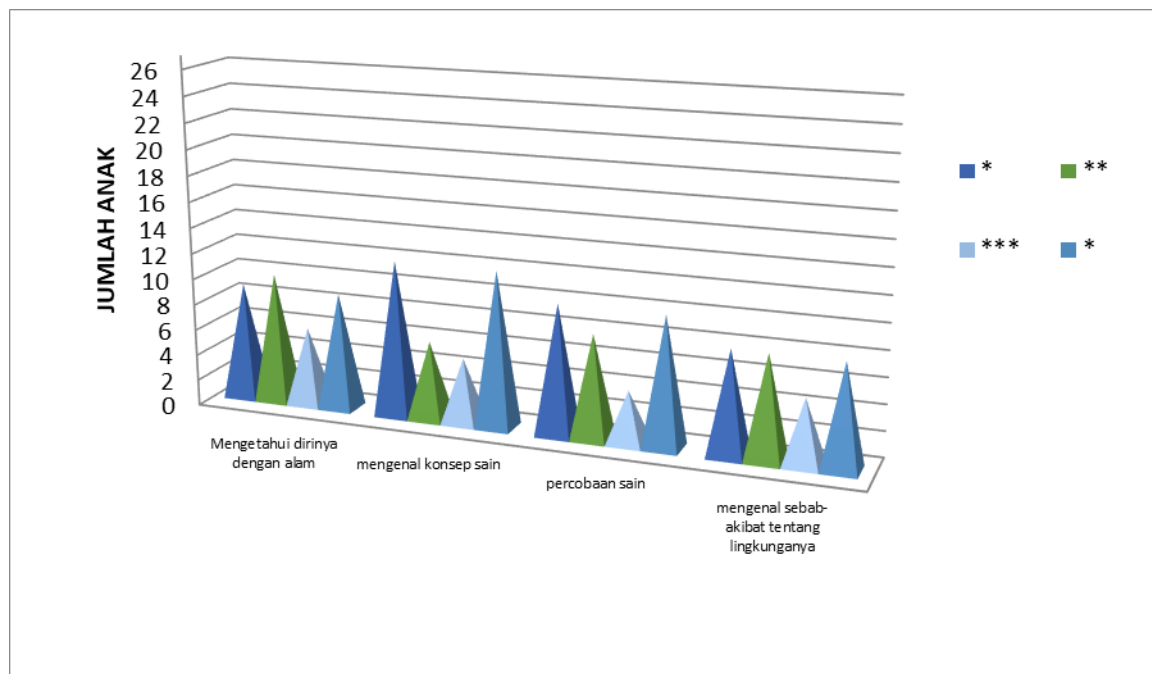
The explanation of the results of this study is based on the action learning cycles at the time the assessment was carried out. Data described in this research is based on data collected by researchers and collaborators. The data is taken through observations and field notes when learning takes place and the results of children's analysis. Below is a description of the data and the findings of the researcher in each learning cycle.

This Classroom Action Research on Improving the introduction of science to children through growing vegetables in Group B4 Children Odd Semester (1) at Pertiwi Metro Central Kindergarten, Academic Year 2017-2018 consists of 2 (two) cycles. Cycle I with the theme: Subthema plants: Grow pakcoy vegetables and Taicin vegetables. Cycle II with the theme Plant, Subtheme: Growing Spinach and Spinach vegetables.

Cycle I Classroom Action Research was conducted on Tuesday, October 10, 2017. From the results of the analysis of the data obtained the results of the evaluation in the first cycle are: when the child is given the opportunity to carry out activities in accordance with the indicators, the aspect of knowing himself with nature is absorbed by 66.66 %. From the activities that have been carried out, the activities in RPPH I and RPPH II in the first cycle in the aspect of knowing the concept

of science obtained an absorption of 55.55%. In the first cycle, it can be seen that when children carry out planting activities, the aspect of science experiments is 62.96%. While in the aspect of knowing the cause and effect of the environment, 70.37% was absorbed.

No	Aspect	Number of children	Value				Children's Absorption
			*	**	***	****	
1	Knowing himself with nature	27	$9 \times 100 / 27 = 33.33\%$	$10 \times 100 / 27 = 37.03\%$	1	Knowing himself with nature	27
2	know the concept of science		$12 \times 100 / 27 = 44.44\%$	$6 \times 100 / 27 = 22.22\%$	2	know the concept of science	
3	science experiment		$10 \times 100 / 27 = 37.03\%$	$8 \times 100 / 27 = 29.63\%$	3	science experiment	
4	know the cause and effect of the environment		$8 \times 100 / 27 = 29.63\%$	$8 \times 100 / 27 = 29.63\%$	4	know the cause and effect of the environment	



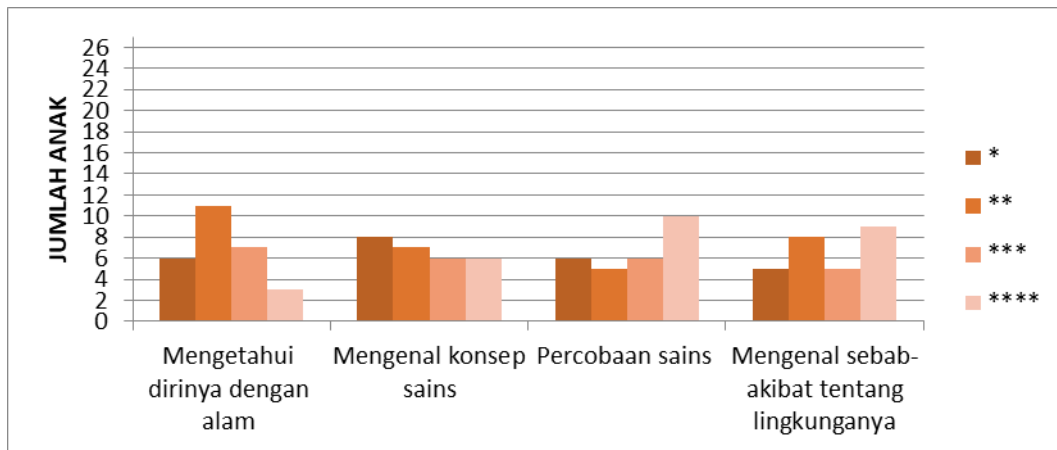
At the beginning of the first cycle activities that have been carried out in RPPH, I are conversing, Planting pok cay, observing pok cay vegetables, watering pok coy vegetables, observing pok coy growth, picking pok coy vegetables, saute pok coy plants and eat together with pak coy. In RPPH II Water the Taicin plants, observe the taicin plants, pick and count the taicin plants. From the results of the reflection, it was felt that this activity had to be repeated because 8-12 children out of 27 children (9.63% -44.44%) children were not able (undeveloped) in carrying out activities in accordance with the expected indicators.

The Cycle II Classroom Action Research was conducted on Thursday, November 9, 2017. From the results of the data analysis, the evaluation results obtained in the second cycle were: when the child was given the opportunity to carry out activities in accordance with the indicators, the aspect of knowing himself with nature was 77. 78%. From the activities that have been carried out, the activities in RPPH III and IV in cycle II in the aspect of knowing the concept of science obtained an absorption of 70.37%. In cycle II it was seen that in the aspects of science experiment skills, the absorption capacity of children was 72.77%. Whereas in the aspect of the ability to recognize the cause and effect of the environment, an absorption capacity of 81.48% was obtained.

Cycle Assessment Data Table II

No	Aspect	Nu mbe r of chil dre n	Value				Children's Absorptio n
			*	**	***	****	
1	Knowing himself with nature	27	6x100 / 27 = 22.22%	11x100 / 27 = 40.74%	1	Knowing himself with nature	27
2	know the concept of science		8x100 / 27 = 29.63%	7x100 / 27 = 25.93%	2	know the concept of science	
3	science experiment		6x100 / 27 = 22.22%	5x100 / 27 = 18.52%	3	science experime nt	
4	know the cause and effect of the environme nt		5x100 / 27 = 18.52%	8x100 / 27 = 29.63%	4	know the cause and effect of the environm ent	

Cycle Assessment Data Graph II



Cycle Assessment Data Graph II

In cycle II, the activities that have been carried out, the activities in RPPH III are, singing, observing kale vegetables, composing healthy kale vegetables with letter cards, separating leaves and stems of kale, sautéing kale and eating together with kale vegetables. Furthermore, in RPPH IV the practice of caring for spinach plants in school gardens, writing spinach plants, picking spinach vegetables, counting 1-10 spinach plants, children eating spinach. Children in participating in activities are more satisfying than in cycle I. In cycle II, most of the children were able to carry out activities in accordance with indicators with good results.

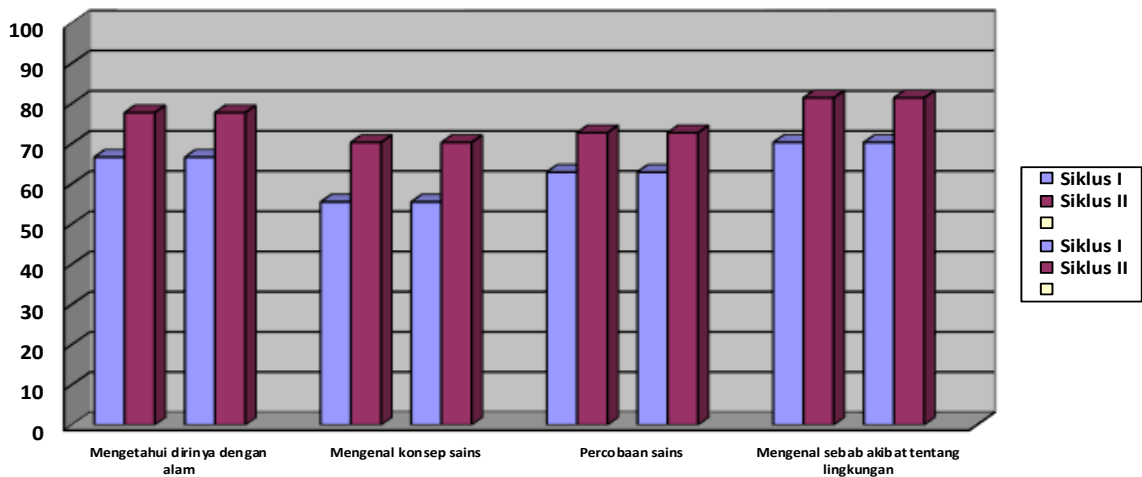
The results of change Increasing the introduction of science to children through spinach and also planting spinach is as follows

Cycle I and II Results Table

No	Aspect	Target Achievement / Absorption% (DS)	
		Cycle I	
1	Knowing himself with nature	66.66%	1
2	know the concept of science	55.55%	2

3	science experiment	62.96%	3
4	know the cause and effect of the environment	70.37%	4

Comparison Graph of Cycle I and II



Comparison Graph of Cycle I and II

From the results table of a cycle I and II above, it can be interpreted that the increase in the introduction of science to children through the activity of growing vegetables in group B4 children has increased between cycles I and II. Thus, the activity of growing vegetables can be applied in learning activities, especially in increasing the introduction of science to children.

CONCLUSION

Based on the results obtained during the implementation of Classroom Action Research (CAR) on "Increasing the introduction of science in children through growing vegetables in Children Group B4 Odd Semester Kindergarten Metro Pertiwi Metro Academic Year 2017-2018", followed by data analysis and reflection on CAR, and some of the findings can be concluded as follows: 1) given the activity of growing vegetables, the introduction of children's science increased, 2) given the activity of growing vegetables, will add to the teacher's insight in improving science recognition

in children and 3) from the 1st and 2nd cycle the results obtained in the first cycle was 63.89%, the second cycle was 76.85%. So, the activity of growing vegetables is very effective to increase science recognition in children.

BIBLIOGRAPHY

- Arikunto, Suharsimi. (2007). *Penelitian Tindakan Kelas*. Jakarta: Bumi Aksara
- Aziz, I. N. (2017). Curriculum Development of KKNI at English Education Department of INKAFA Gresik. *Jalie*, 2, 3. Retrieved from Jalie.com
- Dea, L. F., & Setiawan, A. (2019). Penerapan metode bermain jari tangan dalam mengembangkan kemampuan kognitif pada anak kelas a di raudhatul athfal ma'arif 01 metro. *THUFULLI: Jurnal Pendidikan Islam Anak Usia Dini*, 1(1), 22–34.
- Dewi, Y. A. S. (2014). Analisis Implementasi Kurikulum Tingkat Satuan Pendidikan (KTSP) di Sekolah Dasar Negeri Pisang Candi 1 Malang. *Modeling*, 1(2), 94–109.
- Setiawan, A. (2018). Meningkatkan kemampuan berhitung anak usia dini melalui media pembelajaran matematika di ra ma'arif 1 kota metro. *Seling: Jurnal Program Studi PGRA*, 4, 181–188.
- Setiawan, A., & Sulistiani, I. (2019). PENDIDIKAN NILAI, BUDAYA DAN KARAKTER DALAM PEMBELAJARAN MATEMATIKA DASAR PADA SD/MI. *ElementerIs: Jurnal Ilmiah Pendidikan Dasar Islam*, 1(1), 33–40.