

Science Learning Methods in Kindergarten Schools (Study at: Khalifah Kindergarten in Palu City 2021)

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ABSTRAK

This study aims to describe in general the implementation of science learning at Khalifah Kindergarten in Palu City, present an overview of naturalist intelligence in early childhood, and describe the effectiveness of implementing science learning to improve children's naturalist intelligence in Khalifah Kindergarten in Palu City. This study uses descriptive qualitative research methods that are directed at field research. The type of data used is data obtained from observation, data collection in the field, interviews, and documentation. From the research analysis, it can be concluded that: First, the implementation of science learning for children at Khalifah Kindergarten in Palu is carried out using the play method, the story method, the memorization method, the field trip method, the demonstration method, the project method and the question and answer method. Second, it can be seen from the implementation of science learning that children can get to know animals and plants around them, have a high concern for others and for the preservation of nature, like farming, enjoy keeping pets, enjoy traveling to nature, enjoy learning about nature, animals and plants. Third, the effectiveness of the implementation of science learning to improve the science learning model in the Khalifah Kindergarten, namely the development of interest and ability in science learning at the Khalifah Kindergarten in Palu, including intracurricular and extracurricular learning as well as basic learning which includes the basics of education at Khalifah Kindergarten in Palu, and evaluation/assessment. The effectiveness of science learning can be seen through the assessment of children's learning outcomes and children's expressions, children's enthusiasm / enthusiasm in participating in every lesson given by the teacher, as well as materials that support such learning and creative and innovative teachers.

PRELIMINARY

The National Education System states that Kindergarten (TK) education is a coaching effort aimed at children from birth to the age of six which is carried out through the provision of educational stimuli to help physical and spiritual growth and development so that children have readiness to enter further education (1). In the age range of 3-4 to 5-6 years, children begin to enter the pre-school period which is a period of preparation for entering elementary education (2). Kindergarten is one form of preschool education that is in the path of school education, Kindergarten was established as an effort to develop all aspects of the personality of students in order to bridge education in the family and school education (3).

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To achieve this goal, the scope of the curriculum is combined in two areas of developing children's character and basic ability development (4). The field of basic ability development is an activity prepared by the teacher to improve physical/motor and artistic abilities and creativity. Cognitive itself is developing children's thinking skills to be able to process their learning acquisitions, so they can find various alternative problem solving, helping children to develop mathematical logic skills and scientific abilities (5). Early scientific abilities are abilities related to various experiments or with certain methods in order to approach logically and still consider the stages of children's thinking (6).

To improve early childhood science skills, stimulation is needed so that children can carry out activities as planned by the teacher (4). With the given stimulation, it is hoped that children will be interested and actively participate in science learning. Based on observations that have been carried out by the author at Khalifah Kindergarten in Palu City, it shows that in science learning the teacher has tried to provide maximum learning but learning tends to only be on magazine books followed by assignments to children. This results in children not having the opportunity to find their own facts and concepts of science and children not having the opportunity to develop opinions and solve problems, children still depend on their teachers, namely the dominant teacher in solving problems. So the involvement of children in science learning is still minimal. An example of a child when asked by the teacher the child could not answer and was just silent, during the learning activities the child tends to be busy alone with other children.

Science learning at the Khalifah Kindergarten in Palu is still in the form of rote memorization which is limited to just using magazines or picture books that include mountains, trees, animals and vegetable plants. In science learning, children should be directed to observe directly the surrounding environment and conduct simple science experiments, so that children know the results in fact and answer their own questions. Learning that only sees picture books and magazines causes children to be less interested and tends to be busy with other children, because children are not directly involved. Children should be taught how to feel, experience, and try to solve problems with other children. Science learning activities are a trigger for children's creativity and a supplier of great children's scientific abilities in the future.

Since the stipulation of Covid-19 as a pandemic on March 11, 2020, the Government issued a Circular Letter of the Minister of Education and Culture No. 4 of 2020 which establishes rules for learning from home (learn from home) for school children and working from home (work from home) for teachers, including those who work in kindergarten units (7). For the world of education in Indonesia, this condition is an unexpected thing for teachers, parents, and children. Teachers, parents, and children suddenly have to find ways to keep the learning process going even if they are at home for an indefinite period of time.

Some kindergarten units are still able to carry out the learning process by utilizing information and communication technology (ICT). Some of the other TK units experienced difficulties due to unstable or even non-existent internet networks. In these circumstances, the role of the Government to support parents, teachers, and children in learning at home becomes very important. One of the efforts made by the Government, among others, is to provide distance education learning materials (PJJ) for all educational targets from early childhood education, kindergarten and basic education to secondary education through TVRI television shows and various online learning resources, such as Learning Houses. However, in its implementation, the implementation of PJJ does not always run smoothly.

Based on the various obstacles experienced by teachers and parents, the Directorate of Childhood Education in the context of facilitating learning from home policies has compiled a set of teaching materials, one of which is entitled Playing Science. Through these teaching materials, it is hoped that teachers and parents will have guidelines in implementing learning with children at home.

The research objectives of implementing early childhood science learning are based on the formulation of the problem to be achieved such as: Describe the preparation of teachers in planning science learning, Describe the use of methods used by teachers in the implementation of science learning, Describe the media used by teachers in the implementation of science learning, Describe an environment that supports the implementation of children's learning, Describes the evaluation of children's learning in science learning.

METHOD

This study uses a descriptive method with a qualitative approach with the reason that the researcher is able to identify the symptoms of a problem in detail and as it is. Data collection techniques used in this study through observation, interviews and documentation. While the data analysis used in this study using data reduction, data presentation and conclusion drawing (8).

RESULTS AND DISCUSSION

The Khalifah Islamic Kindergarten Gets Many Positive Responses from Parents and the Surrounding Community, Be One of them Khalifah Palu Kindergarten has a vision and it has been proven that besides students being taught the concept of playing, of course the collaboration between religious education and the concept of entrepreneurship is very good with fun learning methods. Children are invited to play but there is already a lesson there.

Based on the research conducted by the researcher, the researcher will describe the discussion of the data analysis. The teacher's learning plan first prepares the Daily Learning Implementation Plan (RPPH), the Daily Learning Implementation Plan (RPPH) is prepared based on the Weekly Learning Implementation Plan (RPPM) which has been prepared by the teacher assembly. The teacher selects learning materials based on children's science magazines. The media used in science learning is the media available at school, then adjusted to the activities in the children's science magazine. Kindergarten also has learning methods.

The learning method is a design, to describe the details and create an environment that allows children to interact in learning. In order for the implementation of a good teaching and learning process, of course, it is necessary to have a suitable method given to children, so that the teaching and learning process is carried out properly. In learning science at Khalifah Kindergarten, the teacher uses the demonstration method combined with the conversation method. By using the demonstration method, children become more focused when learning takes place.

Method is a method used to implement plans that have been prepared in real activities so that the goals that have been prepared are achieved optimally. As a tool to achieve goals, it does not always function adequately (9). Therefore, in selecting a method that will be used in the children's activity program in Kindergarten, the teacher needs to have strong reasons and factors that support the selection of the method. Learning methods for children in Kindergarten should be challenging and fun, involving elements of playing, moving, singing, and learning. Several learning methods are suitable for the characteristics of early childhood, namely: the play method, the field trip method, the conversation method, the storytelling method, the demonstration method, the project method and the assignment method (10).

When learning in class B1 will start, the teacher first introduces science learning media to children. After that the teacher started demonstrating science activities to children, in class B1 the teacher demonstrated science activities, the glass was placed on folded and unfolded paper. Science learning in class B2 is also the same as class B1, class B1 teachers also use the demonstration method in science learning but are also interspersed with the conversation method, in class B2 the teacher carries out science activities, namely demonstrations of pencils inserted into a glass of water look broken. Unlike the case with learning carried out in class B3 the teacher uses the lecture method, the teacher takes learning materials from children's science magazines, the teacher explains about towels that absorb water on page 8 of the children's science magazine.

Based on the description above, the implementation of science learning provided by the teacher is in accordance with the Daily Learning Implementation Plan (RPPH) designed by the teacher the previous day. Especially in the use of science learning methods is good. However, there are still teachers who have not used learning methods that can attract children's attention because of the limitations of learning media.

Application of Science Learning Media at Khalifah Kindergarten in Palu City

Physical Science

Children are invited to recognize the physical form of objects. Through exploration, children learn about the characteristics of objects, how objects move, changes in objects, weight, shape, size, color, and temperature, and explores how objects move and change, for example: making milk, ice melting, rolling balls, recognize the kinds and various forms of fruit.

Living Science

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Children explore about living things such as humans, animals, and plants. Children will learn about the characteristics, life cycles, and places where living things live, for example: changing from green beans to bean sprouts, growing plants, the aquarium is a place for fish and other living things to grow, caring for pets.

Earth and Environmental Science

The topic of the universe for early childhood includes the natural environment that can be experienced directly by children. Children learn about cause and effect, that everything is important and they begin to appreciate that humans can influence this interdependence, both positively and negatively, for example: recognizing celestial bodies, the process of rain, littering can cause flooding.

Kids Can Play Science Anywhere

The limits of science are viewed from the child's point of view based on observations of children's behavior. With various objects of science, it can be concluded that science for children is everything that is amazing, something that is found and considered interesting and gives knowledge or stimulates them to know and investigate. With these limitations, science by children can be found in all places, including at home. All corners of the house, from the yard, kitchen, bathroom, playroom and others can be used by children for playing activities.

Concrete examples that are more real, for example: When children play with water, can be explained about the concept and properties of water. That water can only flow from a high place to a lower place, water can occupy space and change shape according to the container it occupies, as well as about objects that can float, float, and sink in water. In explaining this phenomenon, children can be invited to experiment directly.

Evaluation of Science Learning at Khalifah Kindergarten in Palu City

Evaluation is the process of collecting and processing information to determine the level of achievement of a child's development (11). Evaluation of learning processes and outcomes with the play model in kindergarten is adjusted to indicators of child development achievement and refers to assessment standards. Evaluation is also a process of documenting a child's skills and development. Evaluation measures a child's developmental level and provides an indication of the child's next stage of development. Evaluation is not just measuring, ranking, or grouping children into certain categories.

Evaluation is the process of giving meaning or determination of the quality of the measurement results by comparing the number of the measurement results with certain criteria (12). Evaluation of children at an early age is essentially done to obtain accurate information about children's development and learning, so that appropriate services can be provided. From some of the things above, the authors conclude that the evaluation of early childhood education learning is a process to obtain information about each child's development in order to provide appropriate services for early childhood. In children's learning at an early age the teacher can evaluate the extent to which the learning that has been carried out is successful, or the use of media that is not appropriate, less attractive or uses methods that are not appropriate. Evaluation is carried out to improve the learning process the next day so that learning objectives can be achieved optimally, as well as to find out the extent to which children's development and learning outcomes are achieved in the learning process.

Evaluation relates to the test. This statement is in line with Fernandes who stated that the test is a systematic procedure to describe a person's behavior in numerical or category form. The test consists of questions to test a goal that has been formulated in advance. In the context of learning, learning objectives have been formulated in advance when designing learning strategies. The formulated learning objectives describe a person's abilities which include cognitive, affective, and psychomotor aspects. These dimensions are described in the form of measurable capability indicators.

Evaluation can be done using assessment, test and measurement. According to Wortham, if a teacher wants to know how students master a value, for example respecting the opinions of others, the teacher needs to take a measurement. The data obtained through measurement is then described or described in an explanation, then the teacher has carried out an assessment using measurement data. If you don't explain like that, then the teacher only takes measurements. Then when in making a description, the data is compared with a criterion so that it can be determined the level of success of students in respecting the opinions of others, then the teacher has carried out an evaluation using measurement data.

Learning Evaluation Indicators At Khalifah Kindergarten in Palu City: Formulating the objectives of the evaluation, Establishing the aspects to be evaluated, Selecting and determining the techniques to be used in the evaluation, Conducted during the activity, natural, and a daily habit, Collecting the results of children's work in the portfolio, Reporting and follow-up.

According to Docett and Tegel, kindergarten teachers need to have adequate communication skills, as well as critical and reflective thinking skills. Critical thinking means clear benchmarks for thinking, while reflective thinking means always contemplating what has been done. Kindergarten teachers also need to consider situations, evaluate available information, make wise decisions, overcome dilemmas, give reasons for their decisions and be able to explain them to others. So

evaluation is a very decisive aspect in skills, including kindergarten teachers.

Teachers play an important role as observers, planning, and evaluating (13). In his duties as an observer, the teacher must make observations first so that the interaction between children and the interaction of children with objects around them goes well. In evaluating learning for early childhood, the teacher has a high responsibility, so that the teacher has the motivation to succeed in his task. To carry out the task of educating well, it is not enough for educators to only have academic and teaching skills, but they need psychological skills "motivation" to lead children in a better direction. Based on the results of interviews and observations of researchers with teachers at Khalifah Kindergarten in Palu City, that in the implementation of evaluation of learning in early childhood the teacher is only limited to observing each child during the learning process and asking questions at the end of the activity, while in evaluating not only by doing that just. In the implementation of learning activities and evaluation of children aged 4-5 and 5-6.

CONCLUSION

This study concludes that the methods that can be used for early childhood learning are playing methods, conversing, field trips, storytelling, assignments, and experiments. And the techniques used in early childhood science learning are asking, memorizing, and taking notes.

SUGGESTION

Recommendations for teachers and principals of the Khalifah Kindergarten in Palu City to increase knowledge in science learning, especially in the development of methods used by teachers, should vary and the design of science learning activities should not only focus on children's science magazines.

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sampai dengan bulan Agustus 2012. Populasi dalam penelitian ini adalah siswa kelas VI Sekolah Dasar Negeri di Kecamatan Gebang. Sampel dalam penelitian ini adalah 12 siswa yang diambil dengan teknik sampling Purposive Sampling dan Snowball Sampling. Pendekatan dalam penelitian ini adalah pendekatan kualitatif. Analisis data dilakukan dengan langkah-langkah reduksi data, penyajian data dan penarikan kesimpulan. Hasil penelitian menunjukkan kesalahan-kesalahan dalam menyelesaikan soal cerita matematika yaitu (1) kesalahan makna bahasa;(2) kesalahan dalam menentukan algoritma penyelesaian;(3) kesalahan dalam konsep operasi hitung matematika;(4) kesalahan dalam pengerjaan operasi hitung bilangan; dan (5) kesalahan dalam menarik kesimpulan. Matematika/FKIP; 2012.

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