Implementation Of Discovery Learning Method To Improve Early Children's Learning

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Abstract. Early childhood is actually an active, creative and innovative learner, therefore educators are required to always develop learning methods so that children can express and explore more optimally. One of the methods applied in teaching and learning activities for early childhood is the Discovery Learning. The learning that is applied in the world of early childhood education is expected to be able to increase curiosity and activeness in learning. So that the mission of an educational institution can be fulfilled, namely the success of children in achieving all aspects of their development. This research was conducted using a qualitative descriptive approach, the data collection technique was a literature study by seeking information from books, journals and the internet. From this study it was found that the implementation of the Discovery Learning able to increase curiosity and active learning of early childhood, due to the involvement of children in learning through direct experience obtained from the environment, through experimenting or observing an object and learning to solve a problem encountered. The Discovery Learning is very appropriate to be implemented in early childhood education institutions to provide space for children to build their own knowledge from the experiences they experience, this freedom makes children feel happy and comfortable so that educational goals can be achieved..

***Keywords*:** Discovery Learning, Early Childhood, Activeness

1 Introduction

Early childhood is the period that is most sensitive to stimuli that occur in the environment around the child, both in the family, school and outside environment. So in this period, parents and educators must really pay attention to always provide the best for children so that their growth and development which includes physical, motor, cognitive or intellectual (thinking power / creativity), social emotional and children's language develop properly. and more optimal. Don't give the wrong stimulus or apply the wrong strategy to your child, which will hinder your child's growth and development. Early childhood is actually an active, creative and innovative learner, therefore as a professional teacher is required to know and understand the characteristics and needs of children. Knowledge of child development is fundamental for early childhood educators in implementing appropriate strategies and methods applied in learning activities according to the child's age development [1].

Today it is no stranger to our ears that the world of education in Indonesia is being heavily heralded for the implementation of the Independent Curriculum, both at the level of early childhood education as well as elementary and secondary schools. But actually in the

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world of early childhood education, from the past, this curriculum has actually been implemented, it's just a slightly different name, such as learning centers and areas. In learning centers and areas, children have the right to choose and determine the activities they want themselves, here the teacher is only a facilitator and motivator, this is the same as independent children learning. But not all early childhood education institutions implement this learning system, because there are several institutions that still apply the teacher center which they consider to be more effective and efficient in conditioning learning situations [2].

The application of the teacher center is often used by educators when educators only prioritize results rather than processes, because the learning system is easy to prepare and implement. With this method educators will more easily master the class, easily organize children's seats, educators will have more totality in explaining lessons, and children tend to be well conditioned, with the hope that what the teacher conveys will be heard by children and of course it can be understood because of the calm situation and focus on educators. But behind all that, this method actually kills children's space and activities, because children are only spectators or recipients of information without being actively involved so that children's creativity and opinions do not develop properly.

From the problems mentioned above, the desire of educators to develop a learning model/method in which children must become the center of learning (student center) and educators only become facilitators, motivators and mentors, so as not to limit children's space for movement. Children can be actively involved, creative and innovative in building their own knowledge with the help of educators. One of the models or methods applied in early childhood learning is the Discovery Learning method.

Discovery Learning or discovery learning that is applied in the world of early childhood education is expected to be able to boost children's ability to build activity, creativity and curiosity (curiosity) for new knowledge and experiences for children. The word discovery is often associated with inquiry so that it will imply the same meaning, namely investigative activities to find a concept of understanding carried out by the child himself [3]. Learning model model or so-called discovery learning is a model developed based on the view of constructivism. In the opinion of Kurniasih and Sani discovery learning is a learning process that occurs when learning material is not presented in its final form, but students are expected to organize themselves.

As stated by M. Hosnan that discovery learning is a model for developing active ways of learning by finding yourself, investigating yourself, then the results obtained will be loyal and long lasting in the child's memory [3]. In this case students are required to be actively involved in finding and obtaining their own knowledge based on their abilities from the material/activities that have been presented by educators. Here the role of educators continues to provide direction and guidance and supervision so that the learning they get is proven correct. Learning Discovery was popularized by Jerome S. Bruner(1960) who stated that discovery can encourage students to ask questions and draw conclusions from general principles based on practical experience, students must play an active role in the learning process. Meanwhile, according to Bruner's theory in "Free Discovery Learning" the child's learning process will run well and creatively if the teacher gives the child the opportunity to find a rule through examples that are described or are the source [3].

The characteristics of early childhood education goals are related to the areas of cognitive development, language, social emotional, motor, attitudes and values and the development of creativity. To develop children's cognitive strategies are needed that can grow the ability to think, solve problems, and draw conclusions. Meanwhile, to increase children's creativity is to use strategies that can increasecuriosityand develop children's imagination and

find new relationships. In this case it is very appropriate if the discory learning method is applied in the world of early childhood education, where early childhood has a great curiosity, this curiosity is the basis for the development of children's instincts of thinking in finding and solving problems. In addition to great curiosity in early childhood, the main basis for the application or implementation of the discovery learning that is carried out is the involvement or activeness of the child in finding a problem which is then processed by the child himself to produce a new experience or knowledge which will later become an embedded knowledge. directly in the child so that it is easily remembered by the child.

The implementation of the Discovery Learning is very appropriate to be implemented in early childhood education institutions to provide space for children to build their own knowledge from the experiences they experience, this freedom makes children feel happy and comfortable so that educational goals can be achieved, namely the fulfillment of children's success in achieving standards for the level of achievement of child development include aspects of religious and moral values, cognitive, language, physical-motor, social-emotional and artistic

2 Theory and Method

The purpose of this research is to explain the implementation of the discovery learning method to increase the active learning of early childhood. This research was conducted using a qualitative descriptive approach, the data collection technique was library research (Libraly Research) by seeking information from books, journals and the internet. Literature study is research in which the author conducts a study and collects data sourced from the media of books, literature, notes, as well as relevant studies related to the research object to be studied. Data analysis techniques are reading, recording, classifying, analyzing and drawing conclusions.

3 Result and Discussion

3.1 The Nature of Early Childhood

A child is gifted with extraordinary potential abilities, even his abilities cannot be actualized by anyone. Humans are born with abundant wealth, such richness and great human capabilities that only a few are used by children at will. By quoting Dr. Alexiz Carre, Montessori said: "Childhood is the richest period, this period should be utilized by education as well as possible, if life is wasted at this time no child can ever be replaced." In order for the development of children in the early years of their lives to develop normally, as parents and educators do not give wrong treatment to children [4].

Early childhood is actually an active, creative and innovative learner, so that whatever stimulus is given will be processed properly by the child. Early childhood in the age range 0-6 years is a very decisive age in the formation of character, personality and intelligence. Early childhood has its own uniqueness, which lies in the innate, capabilities and backgrounds of different children's lives. Educators and parents have an obligation to optimize children's development, at this fundamental phase by providing good and proper nutrition, appropriate stimulation, good parents, a supportive environment and equally important is providing educational services from a young age.

The first role models that children imitate are their parents, because most of the time children spend is with their parents, so that whatever their parents do, children will easily absorb and imitate them. Here it really requires great caution so as not to be wrong in giving examples or treatment. Because once it is wrong in giving an example and treatment, it will forever be

embedded in the child's mind, the child is a miniature of his parents. No less important as the second role model is a teacher or educator, because in fact if the child has been sent to school, of course the child will also have more trust and confidence in the teacher, here the educator or teacher must also always provide a good example and the right stimulus for children so that optimum growth and development. And finally cooperation and parents are very supportive for the growth and development of children.

Children's education is not only limited to sending children to study to gain knowledge, children will grow and develop if they receive a comprehensive education. Overall here it is not only the child's brain that must be smart and intelligent, but more to be intelligent in other aspects of his life such as subtlety, taste, emotion, five senses and including psychological and social aspects of interaction and language. Therefore, age education Early childhood must really be considered and followed up seriously because as the saying goes it is like "carving in stone" that is the child's phase which is the initial foundation to become a relay for the next life to print golden generations and superior seeds.

To create a golden generation and superior seeds for future life, it starts from the initial stages, the most important of which is early childhood education. Early childhood education must be given to children so that the growth and development of children develop optimally. Starting from parents, family environment, schools and the surrounding environment and government support for the importance of children's education is very important so that it can facilitate all children's needs for education. Of course by providing adequate learning facilities, a conducive environment and proper environmental arrangements.

In this case one of the determinants of children's success in achieving development standards is the method*discovery learning* applied in the world of education, especially in early childhood education. Method*discovery learning* which is applied in early childhood education institutions is expected to be able to and really become one of the factors for the success of children, because in principle this method really involves children to be active in an observation activity where children will have great curiosity about an object. the process of which he will observe himself, from the problem to the result, is found by the child himself. So that knowledge or knowledge from the results of observations of children he really feels himself and will be recorded in their brains. This activity will work well, of course there must be intense assistance, guidance and direction from the teacher so that the knowledge the child gets is tested for truth.

3.2 Method Objectives *Discovery Learning*

Education given to early childhood is certainly expected to be successful by various parties. To achieve this success, a complete system is needed which will create active, creative, innovative learning, of course, safe and comfortable for children. To achieve this, the method is applied*discovery learning*.

The discovery learning method aims to provide opportunities for children to be actively involved in learning, increase curiosity (curiosity) for children about a problem/activity, train children's language skills in obtaining information related to the problem/experiment through debriefing the teacher and his friends, children find patterns in concrete and abstract situations, children in a period of concrete thinking will more easily understand the material because they are directly involved in observation, train children to socialize, work cooperatively and share information, obtain more meaningful learning from the observations they experience own, because all the five senses of children are actively involved, develop critical thinking skills, analysis and logic.

3.3 Method Implementation Procedure *Discovery Learning*

In applying the discovery learning method in class, teachers provide opportunities for students to become problem solvers, scientists, historians or mathematicians. Here there are several steps that must be carried out in learning activities, the first is the Preparatory Step and the second is Implementation.

The preparation steps include,*first* The teacher determines the learning objectives to be achieved and determines specific behavior that can be observed and measured according to these goals.*second* The teacher identifies the characteristics of the children seen from their initial abilities, interests, and learning styles. As for identifying the characteristics of children, various things must be considered; 1) Choose material that is appropriate and supports instructional goals, learning objectives and is appropriate to the child's developmental level from easy to difficult, from concrete to abstract, from simple to more complex. 2) Determine the topic of discussion that children must learn inductively. 3) Develop learning materials in the form of various media, props and APE. 4) Set lesson topics to make it easier for children to follow. 5) Conduct an assessment, as feedback on the child's learning processes and outcomes

While the implementation steps include,*First* provision of stimulation (stimulus). In the initial or opening activities, the teacher can provide stimulation as an apperception before entering the main part of the activity. First of all the teacher gives something that causes confusion so that it creates a child's curiosity to investigate this something. This can be done by asking questions with the help of learning tools or media and it is expected to be able to codify children's learning interactions so that children can explore.*Second* identification of problems by way The teacher provides opportunities for children to identify and analyze the problems encountered that are relevant to the subject matter, one of which is selected and formulated in the form of a hypothesis (temporary answers to problem questions).*Third* Collecting data in a way that children are given the opportunity to collect as much relevant information as possible to prove the truth of the hypothesis.*Fourth* Data processing, data and information that has been collected by children is then processed, randomized, classified, tabulated, even if necessary calculated in a certain way and interpreted at a certain level of confidence. So as to produce a new knowledge about alternative answers/settlements that require logical proof. *Fifth* Proof, at this stage the child conducts a careful examination to prove the truth of the hypothesis, this stage aims for the child to find a concept, theory, rules and understanding.*Sixth* Conclusion Drawing, at this stage is the process of drawing a conclusion from the findings which will be used as general principles and apply to the same incident or problem by taking into account the verification results.

3.4 Advantages and Disadvantages of the Method *Discovery Learning*

Determining a method to be applied in learning must consider the advantages or merits of the method, but as a method whose basis is man-made, of course it does not escape from a drawback. Even so, this method is feasible to apply because the involvement and activeness of children in obtaining new discoveries and knowledge from experiments that they experience themselves makes all of this very meaningful and valuable for children. This discovery learning arouses great curiosity for children so they continue to work and eventually find an answer [3]. Below are some of the advantages of this method*discovery learning* are as follows: Increasing children's activeness in developing their cognitive skills and processes, Children gain their own knowledge so that it will be memorable and long lasting, Arousing children's learning

enthusiasm, Giving children opportunities to progress according to their abilities, Involving children in the process of discovery so as to give rise to strong motivation to learning, Helping children gain a strong sense of confidence in learning, Teachers and children participate and exchange ideas in finding a result.

Besides the advantages there are some disadvantages of the method *discovery learning*, among which there is a gap between children in developing their ideas, because not all children have the readiness to think. This will make children who are less intelligent experience difficulties, causing frustration or inferiority. This method is less effective if implemented in large classes. Limited facilities will disappoint teachers and children who are used to traditional teaching methods. Emphasize the acquisition of understanding but less attention to the acquisition of attitudes and skills. Children do not think creatively because the meanings that will be found have been selected by the teacher.

As a teacher, educators must be very good at managing strategies, techniques and tactics, or varying existing strategies or methods to minimize deficiencies so that learning objectives can be achieved optimally.

3.5 Method Implementation*Discovery Learning* in Early Childhood

Method implementation*discovery learning* in early childhood can be done when learning uses the environment, experiments and problem solving as a reference. Environment-based learning is closely related to environmental education. This education has the goal of forming a behavior, values, and habits of respecting the environment and learning tends to be outdoors. Children are introduced to the environment from an early age in the context where the child is, the child is invited to feel directly that he is part of the environment, then the child is directed to observe the environment so that he can distinguish between living and inanimate objects.

Environment-based learning is a form of challenge to the pattern that has been applied in schools, namely learning that is only monotonous in the classroom (indoor). In their environment, children are more free to socialize with people around them, both peers and adults, and it is equally important that children get to know other living things, such as plants and animals. With this learning children can find differences between themselves and other children or differences between themselves and the world around them. Their great curiosity about something new, children are invited to go on an adventure to observe the environment.

The environment which is used as a source of learning is a spatial unit with all objects and conditions of living things including humans and their behavior. The environment consists of elements of living things, inanimate objects and human culture. so that it allows children to explore information about people/humans, materials, tools and objects. In the environment-based learning process, children can be stimulated to answer questions about how many male friends and how many female friends. Then the child can also be given a stimulus to be able to distinguish the size of one object from another, the type of animal from one animal to another, the colors of flowers and so on.

Learning by experiment (experiment) is a learning method that is associated with solving a problem, including using a laboratory and is generally related to science lessons, but in this context the laboratory in question does not need to be limited to a special classroom, modern schools view the whole world around as a laboratory [3].

Through experimentation children will be trained in developing creativity, logical thinking skills, enjoy observing, increasing curiosity, admiration for nature, science and God. Through simple experiments, children will discover something new and amazing, this is important because it is this feeling of awe and admiration for the secrets of nature that will

always make children enjoy learning until they grow up and grow old. Apart from that, with experiments, children can find new ideas or new works that they have never encountered before.

Experimental activities or simple experiments that children can do are as follows: 1) Mixing colors using food coloring in the way the teacher and children prepare three primary colors namely red, yellow, blue. Then prepare glasses filled with water then each glass is given the primary color. Then the teacher demonstrates how to mix colors, for example if you want to get green then the children have to mix yellow and blue, let the children observe the color changes. Do it expressively and in awe so that the children are very happy to enjoy the color change. Then alternately allow the children to demonstrate the process of mixing the colors so they get the results they want. 2) Make bubbles using dish soap. 3) Get to know the concept of sinking and floating using objects that are put into the water. 4) Get to know the concept of rough and smooth in fruits. 5) Make your own shadow in the sun at different times, for example morning, afternoon and evening. 6) The sound wave experiment uses a stringed telephone, which can be done using an empty plastic cup or an old milk can with a long enough string, and so on. There are many other simple experiments that can be applied in the world of early childhood education.

Learning with this problem-solving method can be done by giving a simple problem to children, for example by playing with building blocks children are stimulated to solve how to put triangular, rectangular, pentagon or circle blocks in their respective places. In addition, the cooperative learning pattern of children will show their cooperation when children are given a rope to move heavy objects from one place to another.

Of the several examples mentioned above, of course there are many other examples of method implementation*discovery learning* in early childhood learning. All of this is expected so that children can gain significant experience from the learning process. In order for the application of this method to run effectively and efficiently the teacher should pay attention to the steps described earlier. This discovery learning method has good potential in arousing children's learning enthusiasm. This learning should be packaged and designed with fun, dynamic and child-centered activities while the teacher only acts as a facilitator and motivator.

4 Conclusion

The application/implementation of the discovery learning in early childhood is one of the techniques carried out by educators in increasing the activity of children in learning. the findings the child gets will last a long time in his memory. The role of the teacher here is to provide a problem which later the child himself is motivated to find the answer to through an experiment. Discovery theory was popularized by Jerome S. Bruner who stated that discovery learning can encourage children to ask questions and attract conclusions from general principles based on experience and practical activities.

In a learning method, of course, there are advantages and disadvantages, just as the discovery learning method also has advantages and disadvantages. The advantage of this method is that it helps students actively develop their own mastery of skills and cognitive processes, awakens student learning enthusiasm, gives students the opportunity to move forward according to their own abilities and children feel actively involved in the process so that they are motivated to learn. While the drawback is that there is a gap in developing ideas between students who are slow and students who are smarter, this method is less successful when applied in large groups. As a teacher, educators must be good at arranging strategies, techniques and tactics, or varying existing strategies or methods to minimize a deficiency so that learning objectives optimally achieved.

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