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The use of the Number Game as a Medium for Developing Kinesthetic Intelligence (Descriptive Study on Children Aged 4-5 Years at RA Al-Ilham Pamarayan-Serang, 2020)

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Abstract: This study aims to examine the use of number stepping games as a medium to develop kinesthetic intelligence in children aged 4-5 years at RA Al-Ilham Pamarayan, Serang, in 2020. Kinesthetic intelligence refers to a person's ability to use their body to complete various tasks or challenges. In this study, the number stepping game was chosen because it involves body movements that can improve children's gross motor skills while introducing the concept of numbers in a fun way. The method used in this study is a descriptive approach with data collection through direct observation of children's activities during play. The results of the study showed that the number step game was effective in developing children's kinesthetic intelligence, as seen from the increase in physical involvement, body coordination, and number recognition in children. In addition, this game is also able to increase cooperation between peers and strengthen children's focus and concentration during activities. Based on the results of the research, the number stepping game can be used as an alternative learning medium that is fun and useful in developing kinesthetic intelligence in early childhood.

Keywords: number stepping game, kinesthetic intelligence, children aged 4-5 years, learning media.

INTRODUCTION

Education is an important factor that is very decisive in efforts to build and direct Indonesian people in a better, advanced, and quality direction. An understanding of the curriculum that is in accordance with the development of science and technology, the demands of the times, and the stages of development is very necessary, in addition to the provision of adequate educational facilities and infrastructure.

The increase in kinesthetic intelligence in children aged 4-5 years at RA Al-Ilham is inseparable from the active role of teachers, schools, and the children themselves. Learning is a conscious and purposeful process that aims to achieve certain goals. The teaching and learning process will be successful if it can bring changes in children's knowledge, skills, understanding, and attitudes. Learning is basically an effort by educators to help students carry out learning activities. Kinesthetic learning is achieved through fun activities such as a number game that combines physical with learning.

Teachers play a very important role in the teaching and learning process. Success in delivering subject matter depends heavily on good interaction between teachers and students. Therefore, a teacher is expected to have a deep understanding and be able to develop teaching strategies that are in accordance with learning objectives. This also aims to reduce boredom in children.

Early childhood education is a level of education provided before children enter basic education. This education includes the provision of stimulation, nurturing, guidance, and the provision of learning activities for children from birth to the age of six. As stated in Law No. 20 of 2003 concerning the National Education System, early childhood education aims to help the physical and spiritual growth and development of children so that they have physical and psychological readiness to participate in further education.

Early childhood is in the golden age, where the child's physical and psychological functions begin to mature and are ready to respond to stimuli from the environment. Therefore, it is very important to maximize the child's development during this period because this period will not be repeated. Any development that occurs in that period will be the basis for the child's development in the next period.

Schools as miniature societies require the full attention of all parties, including the government and the community. However, attention alone is not enough; Continuous innovation needs to be carried out to manage and develop schools so that the quality of education continues to improve and students' motivation to learn is maintained.

As the main figure in education, teachers have a very important role in the entire educational process. Success in achieving learning goals is largely determined by the teacher's competence in managing the classroom, choosing appropriate strategies, and using media and teaching aids that are relevant to the development of students.

A good learning process involves interaction between teachers and students, so that the material presented can be well received by students. Learning should lead to measurable changes in students' cognitive, affective, and psychomotor. This will be achieved if the learning objectives are clear and measurable.

Student-oriented learning must change the perspective from teaching to learning. With an innovative approach, learning can focus on developing students' potential as subjects, not just objects in the learning process.

Kinesthetic intelligence, which is a type of intelligence in Howard Gardner's theory of multiple intelligence, is closely related to the gross motor development of children. Kinesthetic intelligence allows children to use their bodies to complete various tasks and challenges. Children who have high kinesthetic intelligence will find it easier to express themselves through body movements, such as dancing, exercising, or even making crafts.

The importance of developing kinesthetic intelligence in early childhood not only impacts their physical abilities, but also on social-emotional and cognitive development. Through physical activities such as sports or games, children can improve blood circulation and other bodily functions, as well as develop a great sense of self-confidence.

Early childhood education must be carried out in a fun way and in accordance with the stage of child development. Varied movement choices, the use of joyful music, and creative

and innovative media, such as number games, can boost children's enthusiasm and make them more interested in learning.

The number step game is a very effective medium to develop children's kinesthetic intelligence. Through this game, children not only interact with numbers, but also involve their whole body in the learning process. Gross motor activities such as running, jumping, or walking, which are involved in a number game, are excellent for a child's physical and motor development.

However, in the field, there are several challenges in developing children's kinesthetic intelligence, such as lack of innovation in learning, differences in the level of kinesthetic understanding between children, limited learning time, and children's ability to develop their kinesthetic intelligence is not optimal.

Based on these problems, the author will conduct research to study more deeply the use of number stepping games as a medium to develop kinesthetic intelligence in children aged 4-5 years at RA Al-Ilham. This research is expected to provide new insights in the field of early childhood education and provide solutions to problems in the field.

METHODS

This research was carried out in the period from March to August 2020 at RA Al-Ilham. The research aims to develop kinesthetic intelligence of children aged 4-5 years by using a number game as a development medium. This research uses a qualitative approach, which prioritizes direct observation of the subjects in their social context. According to Kirk and Miler (in Meleong, 2016), qualitative research relies on human observation in its own territory, using the language and terminology used by the subject. This research consists of three main stages, namely the preparation, exploration, and validation of data which is carried out through the pre-test and post-test methods in learning. Data were collected through interview, observation, and documentation techniques. Interviews were conducted with teachers at RA Al-Ilham to obtain information related to the application of the number stepping game in improving children's kinesthetic intelligence. The primary source of data comes from teachers who have implemented the game, while secondary data is obtained through books, notes, and archives relevant to this study. The research subjects consisted of 10 children aged 4-5 years at RA Al-Ilham, consisting of 5 boys and 5 girls.

Data collection was carried out by interviews, observations, and documentation. Interviews were conducted to dig up information directly from the teacher, while observation was carried out in two stages, namely initial observation and observation of the implementation of actions. Documentation was carried out by collecting photos and videos of number stepping games that were used to improve children's kinesthetic intelligence. Secondary data is obtained through relevant books, notes, and documents. The data analysis procedure is carried out through three stages: data reduction, data presentation, and verification or drawing conclusions. Data reduction aims to simplify information into meaningful data, while data presentation is carried out to organize data in a structured and clear form. Verification or conclusion drawing is carried out after the data is analyzed using an interactive descriptive analysis approach, which organizes the data, compiles patterns, and makes conclusions based on the results of the data analysis. The validity of the data is tested through four main criteria: credibility, transferability, dependability, and confirmability. Credibility is tested by techniques such as extension of participation, observation bending, and triangulation. Transferability is achieved by providing a detailed description so that the research findings can be applied to other contexts. Dependability is tested through a dependency audit to reduce potential errors in the study. Confirmability is carried out with a certainty audit to ensure that the research results are supported by relevant and accountable data. These techniques were used to ensure the validity of the data in this study.

RESULTS

This research was carried out at RA Al-Ilham in children aged 4-5 years to research kinesthetic development through the number game. The learning program used was RPPH for four meetings, with a total of 10 subjects, consisting of 5 boys and 5 girls, and involving teachers as collaborators to monitor children's kinesthetic development. During the study, health protocols were implemented to avoid risks associated with the pandemic and to protect children. This research was carried out while still paying attention to the rules that exist in the situation of children's education, especially during the pandemic which caused the cessation of the face-to-face learning process and children learning from home. Researchers are trying to find alternatives to continue children's kinesthetic development by consulting teachers and the surrounding environment, as well as applying number games as a way to improve children's kinesthetic development.

It is important to remember that a child's kinesthetic development goes hand in hand with his or her grasp and growth. In the number game, children are introduced to numbers through fun games, which are in accordance with the psychology of children at an early age. At the stage of a child's kinesthetic development, games like this provide space for children to move and learn in a fun way, according to the characteristics of children aged 4-6 years. RA Al-Ilham was established in 2007, with a location in Kp. Ranca Saat, RT. 005 RW. 002, Ds. Wirana, Pamarayan District, Serang-Banten Regency. The school provides early childhood education services, with a focus on children aged 4-5 and 5-6 years. RA Al-Ilham strives to improve the quality of education with various trainings and self-improvement, and continues to grow along with the support of funds and various programs carried out.

This school has a vision to make children more confident, intelligent, independent, creative, innovative, and realize a generation of Muslims who have faith, piety, and noble character. Its mission is to carry out education according to religion, create a clean, safe, and fun environment, and provide education with sincere affection. The purpose of the establishment of this school is to help busy parents by paying attention to early childhood development and to develop the child's various potentials both psychologically and physically. This research focuses on the use of number stepping games in improving children's kinesthetic intelligence in RA Al-Ilham, which is carried out by observation, interview, and document analysis methods.

The results of the study show that the number step game is effective in developing children's kinesthetic intelligence. In this game, children are introduced to numbers and practice coordination of body movements through jumping, balancing the body, and clenching hands. Researchers and teachers collaborate to ensure that the game media used captures children's attention and is appropriate to their needs. The teacher facilitates the game by providing clear instructions and preparing the necessary tools so that the activity runs smoothly and enjoyably. The number stepping game has also been proven to improve children's motor skills, such as the ability to jump, balance the body, and remember numbers easily.

The benefits of the number step game not only involve kinesthetic development, but also support other aspects such as the child's social, emotional, and cognitive development. In terms of social and emotional development, these games help children to be more confident and improve their social skills with their friends. In addition, the game provides first-hand experience in getting to know numbers, which is crucial for future math learning. The number step game also helps children to get to know numbers in a fun way and makes it easier for them to understand the basic concepts of numbers.

The advantages of the number game medium include flexibility in its use, the ability to repeat the material, and the combination of text and images that increase children's attraction and understanding of numbers. However, this media also has disadvantages, such as difficulties in displaying movements in print format and the need for good maintenance to prevent damage. Overall, the number game has proven to be an effective medium in increasing children's kinesthetic intelligence, as well as providing a fun and beneficial learning experience for the development of 4-5 year old children at RA Al-Ilham.

DISCUSSION

This discussion discussed the application of the number stepping game as a learning medium to develop the kinesthetic intelligence of 4-5-year-old children at RA Al-Ilham. This study shows that the number step game is able to make a significant contribution to children's kinesthetic development, especially in terms of motor coordination, body balance, and number recognition.

The application of the number game at RA Al-Ilham is carried out with a fun approach and in accordance with the characteristics of early childhood. In the implementation of learning, teachers use this game to develop children's motor skills, such as jumping, balancing the body, and clenching hands. This game is not only fun for children, but also effective in helping children recognize numbers and improve their motor skills at the same time.

In addition, through observations and interviews with teachers, it was found that the media of the number game has advantages in attracting children's attention. This media is able to introduce numbers from 1 to 10 in a fun way, so that children can remember the numbers more easily. Teachers also play an important role in ensuring that the game runs according to the learning objectives, providing clear instructions, and providing the necessary tools and materials in learning activities.

However, while the game of stepping on the numbers has many benefits, there are some drawbacks that need to be noted. One of them is the limitation in displaying movements in the print media used. In addition, even though this medium is made of simple and inexpensive materials, it still needs to be maintained so that the media is not easily damaged. The use of this media must also be adjusted to the child's learning speed and must always be ensured so that it is not boring for children.

Overall, the use of the number stepping game at RA Al-Ilham has proven to be effective in developing children's kinesthetic intelligence, as well as improving their motor skills. With a fun approach and appropriate media, children can learn to recognize numbers in a fun and not boring way. Therefore, this game can be a good alternative to be used in the learning process in early childhood education, especially to improve children's kinesthetic intelligence.

CONCLUSION

Based on the results of the research and discussion in chapter IV, it can be concluded that the way the number step game is for children to look for numbers according to the teacher's instructions by jumping and balancing the body after jumping. The use of the number game for children aged 4-5 years at RA Al-Ilham is very much considered as a tool of application in learning. This game has proven to be effective in developing children's kinesthetic intelligence as well as helping children recognize and remember numbers in a fun way. The benefits of the number step game in developing kinesthetic intelligence can be seen from the development of children's motor skills, ranging from fine motor to gross motor, including locomotor and non-locomotor movements such as jumping, holding body balance, and clenching hands. The advantages of the number stepping game media at RA Al-Ilham include: (1) Children can master the game happily, (2) Learning takes place effectively, (3) Children will recognize numbers from 1-10, and (4) Children's kinesthetic intelligence develops through movements such as jumping, holding body balance, and clenching hands. However, there are several disadvantages of the number stepping media, such as: (1) Lack of space and imagination of children, (2) Limited children's reasoning, and (3) The possibility that children get bored quickly with this game.

The suggestions put forward in this study are as follows: first, for teachers, it is hoped that this research can be a solution to apply numerical stepping media in improving the kinesthetic development of children aged 4-6 years in early childhood education. Second, for

researchers, it is hoped that this research will open up insights into the use of numerical stepping media in improving the kinesthetic development of children aged 4-5 years and can contribute to the addition of science. Third, for STKIP Setia Budhi, this research is expected to be a reference in the development of science related to the development of children aged 4-5 years.

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