EDUCATIVE GAME TOOLS BASED ON ENVIRONMENTAL MATERIALS IN OVERCOMING LEARNING PROBLEMS EARLY CHILDHOOD EDUCATION PROGRAMS

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ABSTRACT

The implementation of Early Childhood Education needs serious attention because many early childhood education organizations still do not meet quality standards, the reason is that there are still limited Educational Game Tools used by education in the implementation of learning. So this study aims to find out the Environmental Material-Based Educational Game Tool in overcoming the learning problems of early childhood education. This study uses a type of qualitative research with a documentation method. The data analysis technique used in this study is Miles and with four stages, namely 1) data collection, 2) data reduction, 3) data presentation, and 4) verification or conclusion. The results of the study show that educational game tools based on environmental materials are easy to obtain, so they can overcome the problems of early childhood learning. One example of an Educational Game Tool is Mekuo-kuo or commonly called congklak.

KEYWORDS	*educational game tools, learning problems, early childhood education*

INTRODUCTION

The presence of Early Childhood Education both on formal channels, namely Kindergarten and non-formal, such as Play Groups, as a forum for the development of all aspects of child development. expected to be able to overcome/provide appropriate solutions to problems encountered in informal education, namely the family. Therefore, in the face of the times that are slowly changing patterns of play and types of games that have a major influence on children's development in the future. Early childhood educators are required to be more creative in developing games so as to create meaningful play activities. Children will learn through direct experience, in the end the knowledge they get will enter long-term memory and last a long

time. This is in accordance with the principle of learning in kindergarten, namely playing while learning, not learning while playing (Khadijah & Armanila, 2017).

Playing is a basic right of early childhood. Playing is an activity to express oneself without coercion with feelings of pleasure. In early childhood, playing can provide many benefits to their development. The benefits of playing can develop the moral, motor, cognitive, language, and social development of children. The benefits of playing are not only felt when done with a group of friends, but playing alone can also provide its own benefits for early childhood (NailiRohmah, 2016).

National Education System Law No. 20 of 2003 Article I paragraph 14 which states that Early Childhood 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 education further, which are held in formal, non-formal, and informal channels. Learning while playing, educators need an educational game tool to teach children. Educational Game Tool is a media that is designed and created to assist the teaching and learning process of educators in the classroom and can help students develop their potential. Educational Game Tools are game tools that can be made with various materials such as materials in the environment which we can also call environment-based APE (Astini et al., 2019).

Adams in Solfema et al., (2018) argues that educational games are all forms of games designed to provide educational experiences or learning experiences to the players, including traditional and modern games that are given educational and teaching content. Therefore, in rural areas, traditional educational game tools and the use of environmental materials are very easy to obtain. This has not been utilized by educators, because the insights and skills of educators of early childhood education staff are still limited.

Based on the background described above, the researcher is interested in conducting research with the title "Educative Game Tools Based on Environmental Materials in Overcoming Learning Problems in Early Childhood Education".

RESEARCH METHOD

The type of research used in this research is descriptive qualitative research using library research methods. Qualitative research on data processing and its findings are not obtained from statistical procedures or other forms of calculation (Surayya, 2015). Qualitative is also interpreted as an approach that focuses on a deeper understanding of a research problem formulation (Salma, 2021)

The data analysis technique used in this study is Miles and Huberman in Sugiyono in Astini et al., (2022) with four stages, namely 1) Data collection, the main activity in research is data collection. In qualitative research, data collection was carried out by means of observation, interviews and documentation. 2) Data reduction, data reduction, namely summarizing the data obtained from the initial stages of data collection in the field, choosing the main things, focusing on the important things, and removing unnecessary things. 3) Presentation of data, the data obtained in the field is not presented as a whole. 4) Verification or conclusion, the final stage in the qualitative data analysis process is drawing conclusions. The conclusion in qualitative research is a new finding that has never existed before in the

form of a description or description of an object whose truth is still unclear so that when examined it will become clear.

RESULT AND DISCUSSION

Early Childhood Education is education that is organized with the aim of facilitating the growth and development of children as a whole or emphasizing the development of all aspects of a child's personality (Angraini et al., 2021). Learning in early childhood is done by playing while learning. The game is a productive and serious activity for children, through play can improve all aspects of their development. Through play, children can discover new things and strengthen things they already know through expression and exploration, which reveal their identity, fantasy, and liveliness (Baharun et al., 2021).

Therefore, attention to the implementation of Early Childhood Education needs serious attention. The problem is that the implementation of early childhood education still does not meet the expected quality standards. One reason is that there are still limited educational game tools used by education in the implementation of learning.

Early childhood education institutions as a forum for building character and exploring children's potential from an early age are supported by the community, especially the family closest to the child by providing learning facilities, especially various kinds of playing tools that contain educational values for children or what is often referred to as Educative Game Tools. (APE) (Faith et al., 2023).

According to Villela in Haryani & Qalbi, (2021) Educational Game Tools are all forms of game tools designed as a means or tool to clarify material, stimulate aspects of children's development and abilities so as to create a sense of fun and educational value in them. Game tools are used when playing and unconsciously the child will get the value of knowledge and understanding as well as real learning experience.

Environment-Based Educational Game Tool is a game tool that is made or used as a medium for teaching and learning processes that originate from the surrounding environment. Materials from the environment that can be used as media in the teaching and learning process, such as zoos, flower gardens, citrus orchards and so on. While the tools used to create an APE from the environment are in the form of wood, bamboo, sand, clay and so on.

To create an Educational Game Tool, knowledge about the environment is needed. Environmental knowledge is a science that teaches us to learn about the environment and how it affects human life around it. According to Supriatin & Listi, (2022) Environmental knowledge has several indicators, namely:
1. Factual knowledge is knowledge that is stored in one's memory. This refers to what an individual knows about the environment around him.
2. Subjective knowledge, is an individual's perception or judgment about what they know and how much they know about the environment around them.
3. Abstract knowledge, is knowledge related to environmental issues, problems, causes and solutions.

The characteristics of educational game tools according to Tedjasaputra in Ariyanti & Muslimin, (2015) argue that educational game tools have several characteristics, namely:

1. It can be done in several ways, meaning that the game tool can be played with various purposes and benefits;
2. Aimed primarily at preschool age children and serves to develop various aspects of children's intelligence and motor development;
3. Make children actively involved because in the process of playing children will use their game tools. In addition, children can also interact with toys, friends and teachers during the playing process by using game tools;
4. Constructive in nature, namely a way of playing that is constructive, fostering, repairing, where children use materials to make something that is not for the purpose of being useful, but aimed at the joy they get from making it.

Before making an educational game tool, the teacher must pay attention to some of the requirements for making it. According to Zaman, (2006) these requirements include educational requirements, technical requirements and aesthetic requirements. The description of these conditions is as follows:

1. Educational requirements Educational requirements mean that the manufacture of educational game tools must be adapted to the applicable educational program so that their production will greatly assist the achievement of the objectives contained in the compiled educational program. More specifically, this educational requirement means that:
   a. Educational game tools made in accordance with educational activity programs (educational programs/applicable curricula)
   b. Educational game tools made according to methodical didactics means that they can help the success of educational activities, encourage children's activity and creativity and are in accordance with abilities (child development stage)
2. Technical requirements Technical requirements that must be considered in the manufacture of educational game tools are related to technical matters such as material selection, material quality, color selection, material strength at certain temperatures and so on. In more detail, the technical requirements for making educational game tools are:
   a. Educational game tools are designed according to the purpose, the function of the facility (does not cause conceptual errors) for example in making building blocks, accurate shape and size accuracy is absolutely fulfilled because if the size is not right it will cause conceptual errors.
   b. Educational game tools should be multi-purpose, even though they are intended for certain purposes, it does not rule out the possibility of being used for other development purposes.
   c. Educational game tools are made using materials that are easy to get in the surrounding environment, cheap or from used/leftover materials.

    d. Safe (does not contain elements that are harmful to children, for example sharp, toxic, etc.)

    e. Educational game tools should be durable, strong and durable (still effective even if the light changes)

    f. Easy to use, adds to the fun of children to experiment and explore

    g. Can be used individually, in groups and classically.

Aesthetic requirements This aesthetic requirement concerns the aesthetic elements of the educational game tools that are made. The element of beauty/aesthetics is very important to note because it will motivate and attract the attention of children to use it. More detailed matters relating to these aesthetic requirements concern the following matters:

    1) Elastic shape, light weight (easy for children to carry)

    2) Size compatibility (neither too big nor too small)

    3) Colors (color combinations) are harmonious and attractive.

An example of an environment-based Eductive Educational Tool is Congklak.

Game of Mekuo-kuo (Congklak)

Mekuo-kuo is one of the traditional games, both performed by the Tolaki and Muna people. Initially the container consisted of 6 pairs of left-hand holes and each right-hand and left-hand ends could be made by hollowing out the ground using subsequent wood with their own heels for smoothing. As for other tools in the form of seeds such as tamarind fruit seeds or you can also use gravel.

Game equipment, namely: 1) six holes perforated on each side and one each at the end, sometimes also in large stones which are punched/or in the ground. Changes: in this study it was made of 3 cm thick wood/board which was smoothed first and then perforated, the choice of boards was because around KB there were still several trees and there were also carpenters, so children could naturally understand the raw materials for this game tool; 2) seeds from dadara obtained in the forests. Because it was difficult to get dadara seeds, the children replaced them with the same number of pebbles, namely 56 seeds, because each hole contained 4 seeds. Changes: in this study the seeds were replaced with tamarind seeds and corn seeds because around the KB there are tamarind stems and corn plantations, making it easier for children to understand the natural surroundings.

How to play: players consist of two teams, each team consisting of 1-2 people. Game technique: To start the game, a lottery or suten is carried out, the winner starts the game by lifting the four seeds in a hole in front of him, then filling in one seed in each subsequent hole. If it runs out, then all the contents of the last hole are taken and then filled in to the next hole, the game is declared stopped for the first team if at the time the last seed finds an empty hole. Next begins for the second team, with the same rarity as the first team. Winners are determined based on the criteria that earn the most points. In addition to naturalist intelligence, children develop through the introduction of game tools from the natural surroundings, they can also improve cognitive and motor skills through training their fingers to move and count (Anwar et al., 2013).

CONCLUSION

Based on the research conducted, it can be concluded that attention to the implementation of Early Childhood Education needs serious attention because the implementation of early childhood education still does not meet the standards caused by the limited Educational Game Tools (APE) used by education in the implementation of learning. So that environment-based educational game tools can be an alternative in overcoming learning problems in early childhood education. One example of an educational game tool that can be used is Mekuo-kuo, also known as the congklak game. This game can improve children's cognitive and motor skills by practicing their fingers and counting.

REFERENCES

Angraini, M., Nasirun, M., & Yulidesni. (2021). Kendala Guru Dalam Penggunaan Alat Permainan Edukatif Indoor di PAUD Se-Kecamatan Kaur Selatan Kabupaten Kaur. *Jurnal PENA PAUD*, *2*(2), 71–78.

Anwar, T, M., & Ibrahim, H. (2013). Model Pengembangan Alat Permainan Edukatif Berbasis Sosial Budaya Pada Pembelajaran Anak Didik Kelompok Bermain. *Jurnal Pendidikan Dan Kebudayaan*, *9*(2), 236–251.

Ariyanti, & Muslimin, Z. I. (2015). Efektivitas Alat Permainan Edukatif (APE) Berbasis Media dalam Meningkatkan Kemampuan Berhitung pada Anak Kelas 2 di SDN 2 Wonotirto Bulu Temanggung. *Jurnal Psikologi Tabularasa*, *10*(1), 58–69.

Astini, B. N., Nurhasanah, & Nupus, H. (2019). Alat permainan edukatif berbasis lingkungan untuk pembelajaran saintifik tema lingkungan bagi guru paud korban gempa. *Jurnal Pendidikan Anak*, *8*(1), 1–6.

Astini, B. N., Rachmayani, I., Nurhasanah, & Sarini. (2022). Identifikasi Permainan Tradisional untuk Meningkatkan Perkembangan Anak Usia Dini di Kabupaten Lombok Timur. *Jurnal Pendidikan Anak*, *8*(2), 103–112.

Baharun, H., Zamroni, Amir, & Saleha, L. (2021). Pengelolaan APE Berbahan Limbah untuk Meningkatkan Kecerdasan Kognitif Anak. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *5*(2), 1382–1395.

Haryani, M., & Qalbi, Z. (2021). dalam Pemahaman Guru Paud Tentang Alat Permainan Edukatif (APE) di TK Pertiwi 1 Kota Bengkulu. *JURNAL EDUCHILD (Pendidikan & Sosial)*, *10*(1), 6–11.

Iman, N., Abdurrahman, Irfan, A. Z., Endriani, A., & Huda, K. (2023). Pelatihan Teknik Pembuatan Alat Permainan Edukatif (Ape) Berbasis Bahan Bekas di PAUD Al Hasanah Ampenan. *Jurnal Dedikasi Madani Jurnal Hasil Pengabdian Kepada Masyarakat*, *1*(2), 34–38.

Khadijah, & Armanila. (2017). *Bermain dan Permainan Anak Usia Dini*. Medan : Perdana Publishing.

NailiRohmah. (2016). Bermain Dan Pemanfaatannya Dalam Perkembangan Anak Usia Dini. *Jurnal Tarbawi*, *13*(2), 27–35.

Salma. (2021). *Pendekatan Penelitian: Pengertian, Jenis-Jenis, dan Contoh Lengkapnya*. Deepublish.

Solfema, Wahid, S., & Pamungka, A. H. (2018). Alat Permainan Edukatif (APE)

Mamah Rahmah Dewi

Berbasis Bahan Lingkungan Dalam Mengatasi Permasalahan Pembelajaran Pendidikan Anak Usia Dini. *KOLOKIUM Jurnal Pendidikan Luar Sekolah*, *6*(2), 107–111.

Supriatin, A., & Listi, S. T. K. (2022). Permainan Edukatif Berbasis Field Trip Dalam Menanamkan Pengetahuan Lingkungan Di Kelurahan Habaring Hurung. *Jurnal Graha Pengabdian*, *4*(4), 304–312.

Surayya, R. (2015). Pendekatan Kualitatif Dalam Penelitian. *Jurnal Kedokteran Dan Kesehatan Malikussaleh*, *1*(2), 75–83.

Zaman, B. (2006). Pengembangan Alat Permainan Edukatif (APE) Untuk Anak Taman Kanak-Kanak. *Seminar Dan Pelatihan Guru-Guru Taman Kanak-Kanak (TK)*.