

# Implementation of the Use of Educational Game Tools (clogs) from Wood Waste to Develop Creativity

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## ABSTRACT

The importance of educational game tools for early childhood is the background of this study, especially in teacher creativity in using wood waste as an educational game tool. This research aims to determine the implementation of using wood waste as an educational game tool to develop teacher creativity at PGRI Sarimulyo Kindergarten. This research uses qualitative methods through a qualitative descriptive approach. The subjects of this research were PGRI Sarimulyo Kindergarten educators. Data collection techniques used observation, interviews, documentation and triangulation. Data analysis techniques use data collection techniques, data reduction, data presentation and data conclusion. The results of the research show that the implementation of using wood waste as an educational game tool (clogs) can develop teacher creativity. Educational game tools (clogs) are traditional educational game tools which play an important role in helping to develop effective and enjoyable learning, with educational game tools (clogs) making it easier for teachers to stimulate aspects of children's development, including aspects of physical, motoric, cognitive and social emotional development, and art, as well as making it easier for educators to deliver learning.

**Keywords:** Early Childhood Educational, Game Tools, and Creativity

## INTRODUCTION

Early childhood education is an integral part of the overall national education system, although preschool education is not an obligation and prerequisite for entering primary school, but in principle education specifically intended for early childhood is still very important in the context of coaching aimed at children from birth to six years of age which is considered the golden period (Basri 2019). According F. Wahyuni (2019) early childhood education is an education program that is directed at learning efforts that are appropriate to the age of the child being able to explore the potential of the child so that it can be a provision in the child's life in the future. That early childhood is a child who is in the golden period, at which time the child is in rapid growth and development (Pebriana 2017). Early childhood is unique in its potential and its services need to be serious so that each potential can become a foundation in climbing the next stage of development (Mansur 2014). Early childhood education is the closest educational unit to children's lives that greatly influences children's lives and behavior until adulthood (Maryatun 2016). Early childhood learning media is a basic and absolute that should be owned is an

educational game tool or better known as educational game tools. Educational game tools is a learning tool that is made specifically for learning activities and has characteristics that can be played with various benefits, aims and forms so that it functions in developing various aspects of intelligence development and also physical motor development of children (Ambarita & Purnamasari, 2020)

Educational game tools are learning media that are really needed in the learning and playing process for children in early childhood education units. Learning and playing activities for children will feel fun and memorable if there are tools or facilities that are also fun. Therefore, implementing the use of educational game tools in early childhood is very important. These media are very varied, some are obtained from factories or bought from toy shops, some are obtained from the surrounding environment by using waste or natural materials. Educational game tools created from natural materials are more economical and more interesting, and can develop the creativity of educators. Play not only increases a child's physical activity but also helps shape their mental alertness. Play also helps children to strengthen their self-confidence and form social relationships with their friends. (Coskun, 2013 ) Media / tools for play can foster creativity (Farahdiansari, 2023)

In the implementation of Early Childhood Education, we often face various obstacles, especially those related to the problem of financing which is more expensive and unaffordable, so it is necessary to find innovative solutions to overcome this so that early childhood education can be implemented well, even though it is cheap but of good quality, so it is good. the creativity of educators in making educational game tools that are versatile, good, attractive, sized according to age level, adapted to children's needs, safe and durable. However, educational games can be made with easy and simple designs, and materials obtained from leftovers - production waste or natural materials that

are easily obtained. Yanthi et al. (2020) explained that to achieve educational goals, educators should be required to utilize facilities that can be used to play and learn in accordance with children's development and needs, so as to provide opportunities for children in self-development. This is in accordance with the paradigm of early childhood education, namely playing while learning and learning while playing. Pre-school education institutions have the main task of preparing children by providing them with a variety of knowledge, ( Putri Handayani, Anizar Ahmad, 2019). Through the provision of the correct stimulus and in accordance with the level of child development, it has hope for potential. (Tulung & Manoppo, 2022)

The limited availability of adequate learning media and educational game tools at PGRI Sarimulyo Kindergarten encourages educators to be creative by using natural materials or media available around the school environment. Among them, educators use wood waste from furniture production houses, namely using slightly elongated pieces of wood which will be made into playing equipment in the form of elongated footwear with clips, which can be rubber material applied to the wood in more than one clip, this game tool. Called clog, it is played by more than two children in pairs. This game was developed to develop children's physical motoric aspects and develop attitudes of tolerance and cooperation. In making playground equipment, some are made by teachers manually, some are assisted by workers who work in production houses, the results of which are no less interesting than factory-produced playground equipment. Field conditions show that educators have limitations in making educational play tools so that there is no change and lack of renewal in delivering learning to children, said .(Kencono & Winarsih, 2021).

Those who directly interact with student are educators. Because they are role models, motivation and inspiration for children, especially students. Have a passion for

learning, creativity and achievement. This will happen when PAUD teachers position themselves as creative teachers. Teachers' creativity can provide services for children to actively participate in every learning activity. Activity and creativity as well as the willingness of an educator are highly expected in presenting a variety of game media that varies according to children's needs. (Wigati & Wiyani 2020)

An educator in developing children's thinking abilities should see that play is something that can provide positive activities for children. Success and achievement are obtained through playing while learning. (Uce, 2021) Therefore, educational game tools are important to stimulate children's thinking skills. Being a early childhood education teacher must be able to carry out and do their duties, including having to have creativity in developing learning media. Teacher creativity in accompanying young children can provide motivation for children to be creative with the stimulation of learning media provided by the teacher in every activity. Almeida et al (2016)

That another ability that teachers must have is that apart from being able to choose the right learning media or educational game tools, teachers must also be able to develop them. These development activities are related to the process of creating learning media or educational game tools that will be used and carried out systematically from the planning, design, production of learning media and learning evaluation stages.

## **MATERIALS & METHODS**

The research method used is a qualitative method through a descriptive qualitative method through a descriptive qualitative approach. Qualitative research means research that is proposed to describe and analyze phenomena, events, social activities, attitudes, beliefs, perceptions, thoughts of people individually and in

groups. some descriptives are used to find principles and explanations. Descriptive is a research method that is shown to describe existing phenomena, which take place in the present or past, but describe the actual situation or what it is. So, this research can be concluded that the implementation of the use of educational game tools at PGRI Sarimulyo Kindergarten to foster creativity by utilizing wood waste can reduce the effects of environmental pollution and can develop teacher creativity, in creating educational game tools for early childhood as a means of learning, developing creativity, improving aspects of physical motor development, cognitive, language, social emotional and art.

The data collection technique carried out by researchers in this study used several research methods that aim to obtain data that met established standards. In this qualitative research, data collection was carried out in a *natural setting* (natural conditions). The data collection methods that researchers use are observation, interviews and documentation. Meanwhile, the data validity technique uses triangulation Rahardjo, Mudjia (2010) and data analysis techniques through several stages, namely data collection, data reduction, data presentation and data conclusions

## **RESULT**

PGRI Sarimulyo Kindergarten is an Early Childhood Education institution which was founded in 1982, under the auspices of the YPLP DM PGRI JT Foundation, located in the middle of Sarimulyo village, Rt. 04 Rw. 02 Winong sub-district, Pati Regency which has cultural and professional diversity in its population. PGRI Sarimulyo Kindergarten has 3 educational staff, namely 1 principal and 2 teachers, and has an average of 25 students each year. Infrastructure to support learning activities is still relatively minimal.



Figure 1 PGRI Sarimulyo Kindergarten building

PGRI Sarimulyo Kindergarten has 2 teachers, and already has BA and SMA qualifications. One of them also took part in a competition held by Mother of Early Childhood Education in Winong sub-district with the theme "Increasing teacher creativity in developing educational game tools (APE) for early childhood". PGRI Sarimulyo Kindergarten teachers also play an active role in the PAUD teacher

competency improvement program organized by the Education Office, IGTKI, PKG, KKG, and others. For example, webinars, workshops, training and other teacher activities aimed at increasing the competence and creativity of teachers and professional teachers. The following is a table listing teachers at PGRI Sarimulyo Kindergarten.

Table 1 Data of PGRI Sarimulyo Kindergarten Educators

No.	Name	Position	Education
1.	Indah Suwarningsih, S. Pd	Headmaster	S1 PAUD
2.	Fitria Damayanti, S. Pd	Teacher	S1 PAUD
3.	Nur Faizah	Teacher	SMA

Based on data collected by PGRI Sarimulyo Kindergarten educators, not all educators have academic qualification data, and have not met the educational standards in

Minister of Education and Culture Regulation No. 137 of 2014 chapter IV concerning Standards for educators and education personnel.

Table 2. Data on PGRI Sarimulyo Kindergarten Students

No	Level	Student		Total
		Male	Female	
1.	Class A	4	6	10
2.	Class B	8	12	20
Total		12	18	30

Based on the information from table 2, it can be explained that the PGRI Sarimulyo Kindergarten has a small number of students in the class, but has advantages in learning so that it can be managed more effectively. One of the learning strategies carried out by early childhood education teachers is to prepare and use effective learning media to educate children in providing stimulus or encouragement in every aspect of development which includes aspects of moral and religious values, motor physical, cognitive, language., and social emotional

so that children do not get bored quickly in following the learning process

In implementing learning, teachers are required to be skilled at managing the class. PGRI Sarimulyo Kindergarten teachers condition the class atmosphere to create a supportive atmosphere for learning. Teachers can show a friendly speaking style and body language to students during the learning process. PGRI Sarimulyo Kindergarten has been using educational game tools to support learning activities. Teachers utilize the surrounding

environment in using learning media. One of the materials for procuring the media used is using wood waste, this material was chosen because it has many benefits, and is widely available around the school environment.



Figure. 2 Clogs Game

## DISCUSSION

The successful implementation of an educational program for kindergarten children is highly dependent on the management of learning resources. Teachers should have the ability to manage learning. Management is very important in every activity. The importance of using learning media is one of the factors that always gets the attention of kindergarten managers. This is because in managing game tools, especially educational game tools. The implementation of teaching in PGRI Sarimulyo Kindergarten uses educational game tools to complement the continuity of the learning process. Educator creativity is the maximum effort of educators to find new ways or learning strategies that can be developed to improve education services in each education unit. . (Qomariyah 2018). In the early childhood learning process, teachers do not only have a role to simply teaching only, but teachers must also have high creativity in order to design and implement learning that is fun, interesting, creative, friendly, and flexible for children, to develop every aspect of their abilities. (Hidayat et al., 2021)

The use of educational game tools aims as a means of helping teachers develop students' competencies. However, in its use sometimes it is still faced with limitations on the availability of educational game tools, therefore teacher creativity in using

educational game tools really requires better teacher ability to adjust between the limitations of game tools and the activities carried out. (Dewantara et al., 2020) The play equipment utilized should fulfill the developmental aspects, including religious and moral values, physical motor, cognitive, language, social emotional and art. Because it does not rule out the possibility of not maximizing the implementation of learning in kindergarten due to the limitations of game tools and the lack of teacher ability to manage limited game tools, as well as the accuracy of the use of educational game tools always supports the success of learning where its use is adjusted to the level of development and ability of each child so that it can develop optimally. (Syamsuardi, 2012)

Teachers in stimulating the needs of students and their developmental aspects, educational development tools are the right media that play a role in the process. Learning resources can be created with various methods so that children can more easily know the values contained in them and express them in learning activities. In creating this learning resource can be a tool that can function to help the child's learning process. Educational game tools are media learning resources that are used to meet children's needs and fulfill their play instincts. (Hunter et al., 2020) The teacher's role is crucial in supporting children's skill development in self-initiated experiences in the classroom and in the neighborhood. The teacher also responds to each student's question or response without judging or blaming the student. A conducive learning environment is a requirement that must exist in learning to develop the creativity of teachers and students. (Ferrari & Schoolnet, 2009) Education is considered important in fostering skills, creativity and innovativeness. (Mita & Qalbi 2020) Educators serve as moderators, where educators must have expertise, and maximum knowledge and understanding regarding facilities, learning media and educational game tools, because learning

media is a means of communication to more effectively process teaching and learning activities in educational units. (Inal et al., 2011) Learning by utilizing waste or used materials is an important part of active learning methods where children learn to do, experience and experiment. (Wahyuni et al., 2021) that the benefits of educational game tools for stimulating child development include: Improve children's intelligence and provide a fun learning experience for children with a variety of interesting game tools, Can help develop children's sensory / sensory and motor skills, Stimulate children's creativity Improve critical thinking and problem solving skills possessed by children, Increase children's concentration power, Stimulate aspects of children's social emotional development.

Children are invited to use waste materials freely in activities in the learning process where they interact with people, objects and actions, and build new understanding. Learning with waste materials can also create the perfect environment for raising children who can develop creativity, express themselves and discuss. Apart from that, children can face different things, including experiences, freedom to use materials with different methods, and play an important role in developing new things and their imaginations. Educational Game Tools are one of the learning media that is very suitable for early childhood. Apart from aiming to play, educational game tools can also stimulate all aspects of child development in accordance with the age stage. James W, Elston D, 20 C.E Revealed that educational game tools in their use have many benefits for the growth and development of children and can provide opportunities to socialize with the surrounding environment. Children's lives cannot be separated from play activities. These activities make one of the opportunities for early childhood teachers to instill children's attitudes or characters and develop developmental aspects. (Dewi & Handayani, 2019). Children's play is also a

child's learning process. By playing, children can learn many things they did not know before, they can also stimulate all aspects of development, including religious and moral values, physical motor, cognitive, language and social emotional. Play is contrasted with work and is characterized as a type of activity that is basically considered unimportant, trivial and does not have a serious purpose, as such, it is only done by children because they are not yet adults. (Nestor & Moser, 2018)

Astini et al. (2019) stated that educational game tools were used and developed by teachers as learning media sourced from the surrounding environment. Materials taken from the environment that can be used as media in the teaching and learning process include flower gardens, zoos, orange groves and others. Meanwhile, the tools used in creating an educational game tools from the surrounding environment can be wood, bamboo, twigs, leaves, sand, clay, rocks and so on.

Of the various educational game tools mentioned above, the teacher has planned and prepared them before the learning activities are carried out, the teacher also considers the purpose and benefits of the educational game tools that will be used, for example clog educational game tools. In this research, we will discuss the Clogs educational game tool resulting from teacher creativity in utilizing wood waste.

From the variety of educational game tools mentioned above, the teacher has planned and prepared it before the learning activities are carried out, the teacher also considers the objectives and benefits of the educational game tools to be used, for example educational game tools clogs. In this study will be discussed about educational game tools Clogs as a result of teacher creativity in utilizing wood waste. Clogs is a traditional game tool which has another name, namely *terompa galuk*, this game tool is said to have come from West Sumatra. Clogs are made from thick pieces of wood shaped like sandals, which are about 125 cm long and about 10 cm wide.

On each board there are three or four rubber straps for binding the user's or player's feet. Clogs are made in such a way. This game tool is played by more than one or two children. Specifically, clogs are made from pieces of wood that are no longer used, the teacher equips the pieces of wood with rubber as clamps. Clogs are an educational game tool that can develop coordinated body movements between stepping movements and swinging movements of the arms with the child's body, and train children's balance, flexibility and agility. Clogs also improve children's gross motor skills, which is very important because if their physical motor skills are disturbed, it will be difficult for children to control their body movements and balance properly.

Clogs are an educational game tool that has its own uniqueness, this traditional game tool aims to train children's cohesiveness such as the ability to walk quickly together, coordinate body movements, coordination between stepping movements and swinging hands with the child's body, train balance and agility of children.

Clogs require a large enough space and enough lighting to play the game. Usually, three to four teams are needed for competition activities, because the more participants, the more exciting the game will be. Players in this game are free, can be male or female. The distance in the race varies between 10 to 15 meters. The team that walks the fastest to the finish is declared the winner and can enter the next round, and can fight another team that has also won. From the final, one of the winning teams will be obtained. (Denok et al., 2021)

Through the application of traditional clog games, it can improve children's gross motor skills in balance, speed and strength in early childhood. So it can be seen that traditional clog games are very useful to support children's gross motor development. (Purwanto et al., 2023)

In terms of the benefits obtained from clog games, it is to grow and train coordination between limbs because when playing, all

limbs and legs must move simultaneously. (Melia Novita, 2021)

## CONCLUSION

Based on the data that has been described above, the conclusions related to the research on the implementation of the use of educational game tools (clogs) from wood waste to foster creativity in PAUD, which was carried out at TK PGRI Sarimulyo, Sarimulyo Village, Winong District, Pati Regency, are as follows:

- 1) The implementation of the use of educational game tools (clogs) resulting from the utilization of wood waste has been carried out at Tk PGRI Sarimulyo is an effort to foster teacher creativity in the procurement of educational game tools as media in learning. From these activities can reduce environmental pollution, and can produce useful items that are more practical and economical, and have educational value so that it should be developed.
- 2) Utilization of wood waste as Educational Game Tools (clogs) can improve the quality of fun learning and increase the value of aspects of child development including moral and religious aspects, physical motor, cognitive, social emotional and art.
- 3) Utilization of wood waste as Educational Game Tools can foster teacher creativity, teachers can increase their creative ideas through these activities.

## Declaration by Authors

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