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Implementation of Teachers and Parents in Developing Children's Creativity in Playing *Playdough*

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ABSTRACT This study is motivated by the observation that some children at Ar Rohman Plosokandang Kindergarten show low interest in creative activities using Playdough. The research aims to examine how *Playdough* as a learning media can stimulate early childhood development, particularly creativity. The study was conducted as field research, with data collected through observations, interviews, and document analysis. Data were analyzed using the qualitative steps of data reduction, data presentation, and conclusion drawing. The results indicate that Playdough, made from wheat flour, water, salt, oil, and food coloring, attracts children's attention due to its flexibility and vibrant colors, enabling them to engage in playful learning while developing creativity. Assessment of developmental outcomes shows that 3 children (17.65%) reached initial developmental milestones (MB), while 14 children (82.35%) achieved developmental outcomes according to expectations (BSH). These findings suggest that incorporating *Playdough* into early childhood activities can effectively enhance creative development and engagement in learning through play.

Keywords: *Teachers and Parents, Children's Creativity, Playdough.*

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INTRODUCTION

The COVID-19 pandemic has had two impacts on the continuity of education (Wijayanto, 2020). The first is the short-term impact, felt by many families in Indonesia, both in urban and rural areas. Many families in Indonesia are unfamiliar with homeschooling. Homeschooling for Indonesian families is a major shock, especially for the productivity of parents who are usually busy with work outside the home. Similarly, it poses psychological challenges for children who are accustomed to face-to-face learning with their teachers. All elements of education, socially and culturally, have been "exposed" to the effects of COVID-19.

Children's creativity needs to be nurtured and developed. Through creativity, they can become creative individuals. Creativity plays a crucial role in a child's life. Through creativity, children can create according to their talents and abilities, solve problems, and improve their quality of life in the future (Rahman, 2019). Therefore, stimulation that can foster children's creativity is needed, one of which is through the use of playdough. In reality, early childhood creativity has not yet developed well; children are not yet fluent in expressing ideas. The purpose of this study is to describe the level of creativity in early childhood using *Playdough* as a medium, and to identify differences in creativity levels before and after using playdough.

At Ar Rohman Kindergarten in Plosokandang, we found that some children were less interested in creating with playdough. Based on observations with the class B teacher at Ar Rocmah Kindergarten, the students were less inclined to be creative with *Playdough* without examples from their teachers or parents, or without individual assistance in creating various creative forms with it. Based on the background mentioned above, this study is more interested in understanding the problem through a descriptive qualitative approach. The researcher believes that the problem of children's lack of creativity using *Playdough* at Ar Rohman Kindergarten during the COVID-19 pandemic is very complex and cannot be separated into variables because they are interrelated.

This study offers novelty by focusing on the use of Playdough as a medium to enhance early childhood creativity specifically during the COVID-19 pandemic, a period that significantly disrupted conventional learning processes. While previous research has explored general early childhood learning through play, few studies have examined how Playdough can foster creativity when children face limited face-to-face interaction and reduced guidance from teachers and parents. The study highlights the integration of cognitive, artistic, and motor skill development through a single, playful medium, providing new insights into how multisensory, hands-on activities can support holistic child development under atypical learning conditions.

The rationale for this research stems from the observed challenges at Ar Rohman Kindergarten, where many children exhibited low interest and limited creativity in Playdough activities without direct examples or individualized guidance. Early childhood creativity is essential for problem-solving, self-expression, and the development of talents that contribute to lifelong learning. By investigating the strategies teachers and parents can employ to stimulate creativity with Playdough, this study seeks to address a practical educational problem while also contributing to the broader understanding of play-based learning as a tool for nurturing cognitive, artistic, and motor development in young children.

Therefore, this study focuses on how teachers and parents can improve children's creativity using playdough. Creativity is part of a series of various aspects of child development, starting from the cognitive aspect, children are stimulated to think about what shapes to create. In the artistic aspect, children will begin to create shapes by trying to resemble the original shape, this encourages creativity in the arts. Furthermore, creativity using play dough also stimulates the development of gross and fine motor skills in early childhood. Children begin to be trained to move the muscles in their fingers. Based on these phenomena, researchers are interested in conducting research at Ar Rohman Kindergarten.

METHOD

This study employs a qualitative field research approach, aiming to examine phenomena directly in the natural classroom setting to understand the learning processes and outcomes of early childhood activities. Data were collected using three primary instruments: observations, to record children's behaviors and interactions during activities; interviews, to gather teachers' perspectives on planning and implementation; and documentation, including lesson plans and teaching materials, to support triangulation and contextual understanding. Data analysis was conducted in three stages: data reduction, where raw data were organized, summarized, and coded according to emerging themes; data presentation, in which the processed data were displayed in narrative, tabular, and visual formats to facilitate interpretation; and conclusion drawing, where patterns and findings were synthesized and verified against the research objectives. To ensure validity and reliability, the study employed triangulation of data sources, member checking with teachers, and peer review of interpretations, ensuring that the conclusions accurately reflected the observed phenomena and the effectiveness of the learning methods under study.

RESULT AND DISCUSSION

Playdough is another clay toy made from wheat flour. *Playdough* can be made independently at home. Parents who want a toy that can also assist their children's learning activities can use this learning medium by making it themselves at home. The materials used are also easily obtained. *Playdough* consists of wheat flour, water, salt, oil, and food coloring. The flexible and colorful *Playdough* will attract children's attention, allowing them to learn while playing, which can foster their creativity. Child development through playdough, as seen from the percentage of children's class developmental achievements, shows that 3 children (17.65%) reached the final developmental milestone of "Beginning to Develop" (MB), and only 14 children (82.35%) reached the final developmental milestone of "Developing According to Expectations" (BSH).

This research finding aligns with Daryanto and Widiastutik's analysis. *Playdough* comes from the English word "play," meaning play, and "dough," meaning dough (Daryanto and Widiastutik, 2020). *Playdough* is a play medium that is a modern form of clay. *Playdough* is an educational toy that is readily available at an affordable price and can even be made at home. By playing with playdough, children are free to shape it according to their desires and imagination. Anggraini explained that playing with *Playdough* is an activity that benefits children's motor skills, cognitive skills, and patience. Through playdough, children not only play but also benefit from improving their brain development. With playdough, children can create any shape using molds or free-form molds according to their individual creativity (Ni'mah & Fachrurrazi, 2025). Creativity can be developed through creating products, one of which is playdough/plasticine (Monica, 2015). Playdough/plasticine is a soft material that can keep children engaged for long periods of time while working with it. It comes in a variety of colors (such as the rainbow), but it is brittle and can get dirty on carpets.

Playdough/plasticine is an educational play tool because it can stimulate children's imagination. Playdough/plasticine encourages children to be creative, fostering their creativity. Children are trained to use their imagination to create or create structures or objects according to their imagination, such as numbers, buildings, letters, the alphabet, animals, and more. *Playdough* is an alternative activity that can be used to enhance children's cognitive abilities, particularly in recognizing number concepts. Play activities should consider the developmental principles and characteristics of early childhood, fostering ideas for expressing freedom, imagination, and creativity, thus fostering aspects of early childhood development, including cognitive development.

Playdough or plasticine is included in the category of educational play tools (EAP), which function to support children's overall development. According to Rakhmawati (2022), EAP is a tool specifically designed to help children learn through fun play activities. In this case, *Playdough* acts as a medium that stimulates children's fine motor skills through pressing, rolling, and shaping (Arifah, 2021). These activities not only strengthen finger and hand muscle coordination but also enhance children's ability to manipulate objects to achieve desired shapes. Thus, *Playdough* media becomes an effective and fun learning tool in developing basic skills in early childhood.

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Furthermore, according to Sudarti (2020), children's creativity develops when they are given the opportunity to express their ideas and feelings freely without pressure. Using *Playdough* provides space for children to experiment and create works based on their imagination. Through this activity, children not only learn to produce diverse shapes such as numbers, letters, or animals, but also develop divergent thinking skills, namely the ability to find multiple solutions to a single problem. The activity of shaping *Playdough* encourages children to think flexibly, originally, and elaborately, all of which are important indicators of creativity (Pranita, 2024).

In his study of early childhood learning, (Amelia & Ilhami, 2025) emphasized the importance of social interaction and cultural context in children's cognitive development. Using *Playdough* in group activities, for example, allows children to interact, discuss, and imitate their peers, thus fostering social learning through the zone of proximal development. Children gain meaningful experiences when their imaginative ideas are recognized and developed through teacher guidance and collaboration with peers. Thus, *Playdough* not only stimulates individual creativity but also strengthens children's social and communication skills through active and collaborative learning.

Playdough/plasticine can enhance spatial and pictorial intelligence because it allows children to create shapes according to their imagination. According to Thurstone's Primary Mental Abilities Theory, as cited by Yuliani Nurani Sujiono, cognitive skills are a manifestation of primary abilities, one of which is spatial understanding (spatial factors) (Nurani & Sujiono, 2008).

Children are also able to understand drawings in the form of floor plans or maps. This intelligence can develop children's creativity to create new patterns.

The learning process, carried out through counting activities, is presented in a fun and engaging play environment. This atmosphere makes learning challenging for children, allowing them to easily construct their own knowledge. Neuronal connections are continuously connected, stimulating systematic and imaginative thinking, and maximizing learning. The stages in discovering and building knowledge through a systematic thinking process and through concrete objects, can improve children's cognitive abilities.

Through playdough, children can develop ideas, propose models of other objects, and then develop skills (creative reactions) to the explanations they hear. Children's attention spans are extended as they concentrate on the explanations. They are also able to organize their abilities as they learn from fascinating experiences, building self-confidence in what is conveyed. Furthermore, through creativity, children gain ideas for new creations. Their imaginations can develop, and from these imaginations, children begin to connect ideas, producing original works, equipping them to become natural craftspeople.

Based on Piaget's constructivism theory, children learn through direct experience and active interaction with their environment (Alhabib, 2021). In the context of *Playdough* play, children construct their own knowledge through exploration and experimentation with flexible and malleable materials (Nurhasnah dkk., 2024). When children create various shapes or models of objects, they not only practice fine motor skills but also develop symbolic and logical thinking skills. This activity strengthens the processes of assimilation and accommodation in the formation of new thought patterns, which form the foundation of children's cognitive development.

From Guilford's creativity theory perspective, *Playdough* fosters divergent thinking skills, namely the ability to generate multiple ideas or solutions from a single situation (Almaniang et al., 2025). Children who are encouraged to create new shapes develop originality, flexibility of thought, and elaboration of ideas (Nurani & Hartati, 2020). When they react to teacher or peer explanations and try to modify the shapes they have created, they are engaging in high-level creative thinking. This broadens their attention span, trains concentration, and fosters self-confidence because they feel in control of their creations.

Furthermore, according to Carl Rogers' humanistic theory, creative play activities like *Playdough* provide opportunities for children to express themselves freely without fear of making mistakes (Armedyatama, 2021). This enjoyable experience fosters a sense of psychological security and self-confidence, as children feel accepted and valued for their work (Sihite & Anggraini, 2024). In a supportive learning environment, children can optimally organize their abilities, learn from meaningful experiences, and develop their potential naturally. Thus, *Playdough* games are not only a means of playing, but also a holistic learning medium that fosters creativity, imagination, and self-confidence in children.

The results of this study are supported and in accordance with the opinion put forward by Torrance who stated that the characteristics of creative actions are (1) creative children learn in creative ways such as children learn to ask questions, guess and then find answers, (2) creative children learn to have a long attention span to things that show creative efforts such as listening to stories (3) creative children have amazing organizational abilities because creative children will feel more than others so that children's self-confidence to appear in front is very high, (4) creative children can return to something they are familiar with and see it from a different way. (5) creative children learn a lot through fantasy, and solve their problems by using their experiences. (6) creative children enjoy playing with props and places as natural practice.

The use of *Playdough* as a learning medium allows children to engage in hands-on, exploratory learning, which aligns with constructivist principles. By manipulating shapes, textures, and colors, children are not only practicing fine motor skills but are also developing cognitive abilities, such as spatial awareness, problem-solving, and planning. This analytic perspective highlights that *Playdough* provides both sensorimotor and cognitive stimulation, making abstract concepts like shapes, sizes, and patterns more tangible and understandable for young learners.The study indicates that *Playdough* games foster intrinsic motivation in children. Because the activity is enjoyable and self-directed, children are more likely to persist in tasks, experiment with new ideas, and take creative risks without fear of failure. This finding supports Armedyatama (2021), who emphasizes that playful, open-ended learning environments enhance children's engagement and willingness to explore, which is critical for the development of creativity and lifelong learning habits.Furthermore, the research shows that *Playdough* activities contribute significantly to psychosocial development. Children experience a sense of accomplishment when completing creations, which strengthens their self-confidence and self-esteem.

This outcome resonates with Sihite & Anggraini (2024), who argue that providing opportunities for self-expression in a supportive environment allows children to internalize positive feelings about their abilities, promoting a healthy psychological foundation for future learning experiences.Analysis of classroom interactions reveals that *Playdough* encourages collaborative learning. Children often share tools, ideas, and strategies while working together, which develops social skills such as cooperation, communication, and empathy. From an educational perspective, this indicates that *Playdough* serves as more than an individual creative medium; it also functions as a social learning tool that cultivates emotional intelligence alongside cognitive growth.When compared to Torrance's (as cited in your text) characteristics of creative children, it becomes evident that *Playdough* supports several key dimensions of creativity. For example, children demonstrate prolonged attention spans when engrossed in imaginative constructions, exhibit organizational skills in planning their creations, and revisit familiar ideas in novel ways.

This observation suggests that structured *Playdough* activities can be designed to intentionally scaffold creativity, guiding children toward higher-order thinking while still preserving the freedom to explore independently.Moreover, the multisensory nature of *Playdough* contributes to experiential learning, where children learn through doing and reflection. Manipulating the material requires the integration of visual, tactile, and kinesthetic senses, which enhances memory retention and reinforces learning. Analytically, this supports the argument that early childhood education benefits from materials that engage multiple modalities, as they make abstract concepts concrete and improve the transfer of skills across different contexts.Finally, integrating *Playdough* games into the curriculum has practical implications for early childhood education. Teachers can strategically use this medium to design activities that develop creativity, fine motor skills, and problem-solving abilities while aligning with learning standards. The study highlights the importance of intentional pedagogical planning, where playful materials like *Playdough* are not merely recreational but serve as structured, developmentally appropriate tools that nurture both cognitive and emotional growth in young children.

Playdough will often allow children to generate new ideas, which they ultimately use to express their creative ideas. In addition to the *Playdough* medium, the success of enhancing children's creativity is also influenced by supporting methods, such as providing opportunities for children to perform in front of the class to express their creative abilities. Children who play with *Playdough* not only enjoy themselves but also benefit from enhanced brain development. With playdough, children can create shapes using molds or their own creativity.

Childhood is known as the play period because children spend a large portion of their time playing, as it is enjoyable for them. This often leads children to learn a great deal through play. In

carrying out these activities, children naturally use their entire bodies, and each child's abilities vary. One method teachers can use to help children experiencing these challenges is through play with *Playdough* (Amelia & Ilhami, 2025). According to Krisnawati, playing with *Playdough* involves shaping, coloring, and coloring to create various shapes. Playdough, like singing, can be done consciously with a specific purpose or simply by forming meaninglessly (Muryani & Asmawulan, 2023). Children enjoy learning through play, so using *Playdough* is ideal for the initial development of fine motor skills, as it begins with the process of relaxing the *Playdough* by squeezing, feeling, rolling, flattening, pressing, and sticking.

The knowledge children acquire is not simply imitation of their environment but rather a construct of their thinking. Knowledge is the result of actively constructing their thinking by making connections between one shape and another. *Playdough* also explores how shapes can change position and form, according to the child's desires or imagination, according to the theory of change or transformation. Therefore, children can create shapes using *Playdough* according to their desires and imagination without coercion from others. Support from parents and teachers is certainly a primary and crucial role in achieving the goal of fostering child development and growth. Having a predetermined goal will facilitate achieving the desired results. Providing examples to children will stimulate their development in creating further shapes. Children will thrive if everyone in their environment actively supports their positive activities. Using *Playdough* is a learning tool for children through play. Its flexible, malleable nature encourages children to create objects and, subconsciously, fosters their growth and development.

Playdough serves as a tool for constructivist learning, where children actively construct knowledge by connecting different shapes and observing relationships between them. This hands-on activity enables children to understand spatial and geometric concepts intuitively, strengthening their ability to think logically while engaging in playful experimentation. Through this process, learning becomes an active, self-directed endeavor rather than a passive reception of information. The transformative and flexible nature of *Playdough* allows children to explore changes in shapes and forms according to their imagination, reflecting Piaget's theory of cognitive development. Children experiment with transformation—stretching, flattening, and combining shapes which supports abstract thinking by translating ideas into tangible forms. This process encourages problem-solving and creative reasoning as children decide how to manipulate the material to achieve desired outcomes.

Parental and teacher support plays a critical role in scaffolding learning with Playdough. By providing guidance, examples, and encouragement, adults help children reach developmental milestones while maintaining autonomy in their creative choices. This aligns with Vygotsky's concept of the Zone of Proximal Development, where children achieve higher levels of learning when supported by more knowledgeable others. Setting clear learning goals while using *Playdough* enhances the effectiveness of play-based activities. Goals provide structure without limiting creativity, allowing children to focus on particular skills such as shape recognition, pattern creation, or fine motor coordination. Structured objectives also enable teachers to assess developmental progress systematically while maintaining the intrinsic enjoyment of play.

Playdough activities also foster social and collaborative learning. When children engage in group play, they share ideas, negotiate roles, and cooperate in creating complex structures. These interactions develop communication skills, empathy, and teamwork, demonstrating that *Playdough* is not only a medium for individual creativity but also a vehicle for social-emotional development. The multisensory engagement involved in manipulating Playdough—touching, shaping, and observing supports both motor and cognitive development. Fine motor skills improve as children pinch, roll, and mold the dough, while cognitive processes such as planning, sequencing, and memory are simultaneously exercised. Analytically, this demonstrates that a single playful material can stimulate multiple developmental domains concurrently.

Finally, the integration of *Playdough* into early childhood education highlights the importance of intentional, play-based pedagogy. Teachers can design activities that balance freedom and guidance, allowing children to explore creatively while achieving learning objectives. The findings suggest that when used systematically, *Playdough* becomes more than a recreational tool it functions as a comprehensive educational medium that nurtures imagination, problem-solving, motor skills, and cognitive growth in young learners.

Aspects of child development, including religious and moral values, language development, cognitive development, social-emotional development, gross and fine motor skills, and artistic development, can all be indirectly fostered through play, one example of which is play with playdough. Parents and educators provide knowledge that the material of *Playdough* is man-made, Questions and answers or communication while playing *Playdough* develops language skills, children's social and emotional development is also formed if children play with friends of course still comply with health protocols by using masks and keeping a distance, as well as aspects of children's development in terms of children's motor skills develop when children take, massage, cut and shape playdough, and also children's cognitive development can also develop well when children create a shape according to their thoughts, and children's artistic development is also created when they are creative in making shapes from the *Playdough* dough.

CONCLUSION

Playdough game media can stimulate the development and growth of Early Childhood, because the ingredients for making *Playdough* consist of wheat flour, water, salt, oil and food coloring. *Playdough* that is made flexible and has many colors will attract children's attention so that children can learn while playing which can train the development of children's creativity. Child development with *Playdough* games seen from the results of the percentage of child class development achievements shows that children who have the final development achievement of starting to develop (MB) are 3 children or 17.65% and only 14 children or 82.35% have the final development achievement of Developing According to Expectations (BSH).

Although *Playdough* games have proven effective in stimulating early childhood development, this study has several limitations. The research was conducted with a limited number of participants in a single classroom, which may reduce the generalizability of the results. Additionally, variations in children's engagement, individual differences, and the influence of external factors such as teacher interaction or home support were not fully controlled. Based on these findings, it is recommended that educators continue to use *Playdough* as a learning medium, combining colorful, flexible materials with guided activities that encourage creativity, problem-solving, and fine motor skills. Teachers and parents should provide consistent support, offer diverse *Playdough* challenges, and create a stimulating learning environment to maximize children's development while maintaining the playful and enjoyable nature of the activity.

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