

## EXPLORING KINETIC SAND AS A MULTISENSORY TOOL TO IMPROVE FINE MOTORIC SKILLS IN KINDERGARTEN

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### Abstract:

*This research aims to explore the use of kinetic sand as a multisensory tool in improving the fine motor skills of kindergarten. Kinetic sand is a play media that has a unique texture, is easy to shape, and provides visual, tactile and kinesthetic stimulation simultaneously. Through activities such as molding, grasping, cutting and shaping sand, children can train hand-eye coordination, finger strength and movement precision. The research method uses a qualitative descriptive approach with direct observation of children's activities while playing with kinetic sand. Data was collected through observation, documentation and teacher interviews. The results of the research show that using kinetic sand can significantly increase children's concentration, creativity and fine motor skills. Apart from that, this media also creates a fun and interactive learning atmosphere. Thus, kinetic sand can be used as an effective alternative for multisensory learning activities in early childhood education environments.*

**Keywords:** Kinetic Sand, Multisensory, English Speaking Skills, Kindergarten

### Abstrak:

*Penelitian ini bertujuan untuk mengeksplorasi penggunaan kinetic sand sebagai alat multisensori dalam meningkatkan kemampuan motorik halus anak taman kanak-kanak. Kinetic sand merupakan media bermain yang memiliki tekstur unik, mudah dibentuk, serta memberikan stimulasi visual, taktil, dan kinestetik secara simultan. Melalui aktivitas seperti mencetak, menggenggam, memotong, dan membentuk pasir, anak-anak dapat melatih koordinasi mata dan tangan, kekuatan jari, serta ketepatan gerak. Metode penelitian menggunakan pendekatan deskriptif kualitatif dengan observasi langsung terhadap aktivitas anak saat bermain kinetic sand. Data dikumpulkan melalui observasi, dokumentasi, dan wawancara dengan guru. Hasil penelitian menunjukkan bahwa penggunaan kinetic sand dapat meningkatkan konsentrasi, kreativitas, dan kemampuan motorik halus anak secara signifikan. Selain itu, media ini juga menciptakan suasana pembelajaran yang menyenangkan dan interaktif. Dengan demikian, kinetic sand dapat digunakan sebagai alternatif yang efektif untuk kegiatan pembelajaran multisensori dalam lingkungan pendidikan anak usia dini.*

**Kata kunci:** Kinetic Sand, Multisensori, Keterampilan Berbicara Bahasa Inggris, Taman Kanak-kanak

## Introduction

Education for early childhood is a form of education that emphasizes laying the foundation for physical growth and development (fine and gross motor coordination), intelligence (thinking power, creativity, emotional intelligence, spiritual intelligence), socioemotional (attitudes and behavior and religion), language and communication, in accordance with the uniqueness and stages of development of early childhood.<sup>1</sup> Early childhood is characterized by a fundamental period in a child's life, extending to the final stages of their development. One of the periods that characterizes early childhood is the golden age.<sup>2</sup>

Early Childhood Education is essentially education organized with the aim of encouraging and facilitating growth and development of children's abilities. In fact, every child has potential that can be developed and optimized from early age through appropriate growth and development stimulation. Appropriate treatment or methods are needed according to the child's developmental age. In this regard, early childhood is a crucial period in providing appropriate stimulation. Early childhood is those aged 0-6 years. Stimulation for early childhood can stimulate children's intelligence in moral and religious, social-emotional, language, physical motor, cognitive and artistic.<sup>3</sup>

Fine motor skills are an important aspect of development and must receive appropriate stimulation to their age, as they prepare children for the next level of education. Fine motor skills are movements that require only small muscles and do not require significant effort. Fine motor skills will develop rapidly with frequent practice and repetition.<sup>4</sup> According to Ahmad Susanto, games are excellent for educating children, but they must be imbued with educational content that children can learn. Playing and learning are activities that can provide benefits and support optimal child growth and development.<sup>5</sup>

Developing fine motor skills using kinetic sand is a fun activity in early childhood education. The benefits of this activity is honing their physical motor skills and fostering their imagination and creativity. The main characteristic is providing a foundation for building rules, ideas, and knowledge, as well as concepts for using kinetic sand in play. However, kinetic sand is relatively expensive compared to other media used to develop fine motor skills.

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<sup>1</sup> Yuliani Nuraini Sujiono, *Konsep Dasar Pendidikan Anak Usia Dini*, (Jakarta: PT Indeks, 2013), h. 6-7

<sup>2</sup> Naili Inayatul Maghfirah dan Fikri Farikhin, "Kontribusi Performance Assement Terhadap Kemandirian Anak Usia Dini", *Childhood Education: Jurnal Pendidikan Anak Usia Dini*, Vol. 4 No 1 Januari 2023, h. 82

<sup>3</sup> Nita Puspitasari, Penerapan Media Flash Card untuk Meningkatkan Kemampuan Kognitif dan Bahasa pada Anak Usia 4-5 Tahun, *Jurnal Basicedu*, Vol 6 Nomor 5 (2022) h. 8545 - 8559

<sup>4</sup> Agus Zubar, *Mengenal Dunia Bermain Anak*, (Yogyakarta: Banyu Media, 2008), h. 33-34.

<sup>5</sup> Ahmad Susanto, *Pendidikan Anak Usia Dini (Konsep dan Teori)*, (Jakarta: PT. Bumi Aksara, 2017), h. 97-98.

One of instructional media that can be used to develop fine motor skills is kinetic sand. Kinetic sand is an educational tool in learning that can be used to develop children's creativity, motor skills, and imagination. Kinetic sand is a material readily available in toy stores. It is essentially a substitute for natural sand that can be molded without leaving any residue on hands or clothing. This tool is used to foster children's creativity and motor skills.<sup>6</sup>

This kinetic sand media is a colorful sand media that can be used in developing children's fine motor skills. Kinetic sand media can be a substitute for natural sand, but the texture of this kinetic sand media is easier to shape and mold, making it easier for children to play in training small muscles in children.<sup>7</sup> This study try to implement of kinetic sand games in improving fine motor skills of children aged 5-6 years at RA Darul Ulum Langkap Bangsalsari and describe the advantages and disadvantages of kinetic sand games in improving fine motor skills of children in that school. Based on the importance of developing children's fine motor skills, researchers are interested in conducting research in group B RA Darul Ulum Langkap Bangsalsari. RA Darul Ulum Langkap Bangsalsari is an educational institution located in Tegalan Langkap, Langkap Village, Bangsalsari District. as an educational institution takes the path of early childhood education, it is appropriate that educational model is through play activities. Play activities must be packaged in such a way that refers to the theme, development areas, and indicators presented.

## Method

This research uses a qualitative approach with a case study. The qualitative approach was chosen because this research focuses on understanding of the process, experience, and meaning of kinetic sand play activities as a multisensory tool for improving children's fine motor skills. The case study was chosen because the research was conducted intensively, in depth, and in detail on a single case, a kinetic sand exploration activity in a group of kindergarten children. Case studies allow researchers to holistically explore phenomena within the real-life context of children in the classroom. According to John W. Creswell in Hamid, qualitative research is an investigative process to understand social problems based on creating a holistic picture formed with words, reporting the views of informants in detail, and structured within a scientific framework.<sup>8</sup> A qualitative approach

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<sup>6</sup> Imas Fideli Pragistha, "The Effect of the Use of Kinetic Sand as a Stimulation Media for Fine Motor Development in Preschool Children at Ra Al-Masithoh Karangploso". *Journal of Local Therapy*, Vol. 1, No. 1, February 2022, h. 19-20

<sup>7</sup> Imas Fideli Pragistha, "The Effect of the Use of Kinetic Sand as a Stimulation Media for Fine Motor Development in Preschool Children at Ra Al-Masithoh Karangploso". *Journal of Local Therapy*, Vol. 1, No. 1, February 2022, h. 19-20

<sup>8</sup> Hamid Patiliam, *Metode Penelitian Kualitatif* (Bandung: Alpa Beta, 2005) h. 56

is a research approach that does not use calculations, or what is termed scientific research, which emphasizes data sources.

With a qualitative approach, the writer can search and find data and informants, then process them as sources in compiling this thesis. This qualitative approach uses a descriptive method, namely a research method that is directed to provide symptoms, facts, or events systematically and accurately regarding the characteristics of informants in a particular area. Through a qualitative approach, it is also hoped that the problems and various phenomena faced in this study can be expressed in depth and clearly regarding the Application of Kinetic Sand Games in Improving Fine Motor Skills of Children Aged 5-6 Years at RA Darul Ulum Langkap Bangsalsari. This technique for collecting data sources with certain considerations, for example, the person is considered to know the most about what we expect, or perhaps he is a ruler so that it will be easier for researchers to explore the object/social situation being studied. This technique is used to obtain information or data about the Application of Kinetic Sand Games in Improving Fine Motor Skills. The informants in this research is a head master, teachers, students, and parents.

Data was collected through the following techniques: Participatory Observation. Researchers were directly involved in play activities with kinetic sand. Observations were used to observe how children used their fingers, palms, and small tools when manipulating the sand indicator of fine motor skills. Interviews were conducted with classroom teachers and/or parents to obtain information about children's fine motor development, perceptions of the use of kinetic sand, and changes in children's behavior during the activities. Documentation. Collecting photos, videos, and notes of children's activities during the study to strengthen observational findings. The last is field notes, the researchers recorded important events, children's expressions, social interactions, and interesting things that emerged during the activities.

## **Result and Discussion**

This research was conducted at RA Darul Ulum Langkap Bangsalsari, an early childhood education institution located in Bangsalsari District, Jember Regency. This school has a fairly conducive learning environment, with 12 children in each class (aged 5–6) in Group B. Playground facilities are quite complete, although multisensory activities such as kinetic sand play have not been routinely included. This research involved three stages of kinetic sand play, focusing on improving fine motor skills, such as picking, grasping, rolling, pressing, and shaping.

Implementing Kinetic Sand Play to Improve Fine Motor Skills in Children Aged 5–6 Years: Preparation Stage, the teacher prepares kinetic sand in several large containers with different colors

and textures. Children are divided into small groups of 3-4. The teacher explains the rules of the game and provides examples of how to use kinetic sand to form simple objects such as balls, letters, or animals. Implementation Stage, during the activity, the children appear very enthusiastic about touching and playing with the sand. They begin by pickling and grasping the sand with their fingertips, pressing and squeezing the sand to form small balls, using molds to create specific shapes, using small tools (spoons, spatulas) to transfer the sand from one container to another. This activity encourages hand-eye coordination and strengthens children's finger muscles. Children who were initially clumsy with holding writing utensils begin to show increased finger flexibility after several sessions. The teacher acts as a facilitator, providing verbal stimuli such as "Let's press harder" or "Make small circles" to help children focus on moving their fingers with precision. Evaluation Stage, at the end of the activity, the teacher and researcher observed the children's work and noted any changes. Observations showed that most children experienced improvements in: Ability to pick up small objects, Ability to control hand movements, Independence in using play equipment, Concentration and endurance in activities requiring precision. The children also appeared more confident in showing off their work.

## **Conclusion**

The implementation of kinetic sand play at RA Darul Ulum Langkap Bangsalsari ru well. Teachers prepared kinetic sand media, supporting tools such as molds, spoons, and containers, and provided engaging instructions for the children. The activities were carried out in stages, starting with introducing sand textures, forming various shapes, and creating simple crafts.

While the activities running, the children appeared enthusiastic, active, and focused. Through the activities of grasping, pressing, molding, and shaping the sand, children's fine motor skills developed particularly hand-eye coordination, finger strength, and manipulative skills. Thus, kinetic sand play has proven effective in improving the fine motor skills of children aged 5-6 years. Kinetic sand play has several advantages, an attractive and easily molded medium, motivating children to explore. Stimulates fine motor development, creativity, and imagination. Used individually or in groups, encouraging cooperation and social communication. Safe and easier to clean than regular sand.

Overall, kinetic sand play has a positive impact on children's fine motor development, with the caveat that teachers need to innovate and supervise to ensure activities remain effective and enjoyable.

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