



Braindance Activities Based on Minang Dance Basic Movements in Children Ages 5-6 Years Old

Elindra Yetti✉, Erie Siti Syarah

Universitas Negeri Jakarta, Indonesia

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Abstract

Braindance activities based on Minang dance basic movements are moving activities carried out by children aged 5-6 years at an early childhood education institution in Bukittinggi City since 2019 when the trial results of the development of braindance based on the Minang dance basic movements were implemented at the Early Childhood Institutions. This study aims to (1) examine the uniqueness of the braindance movement based on the Minang dance basic movements, (2) examine the growth and development of children that appear after participating in the braindance activities, (3) examine the situation and condition of the child in the Minang braindance activities. This study used qualitative methods with data collection techniques through observation, interviews, and documentation. Data analysis was carried out with the stages of condensation, data presentation, and drawing conclusion. Data validation was carried out using triangulation of techniques, sources, and time. The study was conducted on fifteen students aged 5-6 years at an early childhood education institution in Bukittinggi. The results showed that: (1) Braindance based on Minang dance basic movements is an activity that combines gymnastic movements with the basic movements of Minang dance, as well as Minang music accompaniment; (2) Children's motor skills become better, children can coordinate movement, brain, and feelings, and children's creativity becomes more developed; (3) Minang braindance activities are fun for children.

Keywords: Braindance Activities; Based on Minang Dance Basic Movements; Children Ages 5-6 Years Old

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INTRODUCTION

Early childhood movement activities can be carried out with various activities, such as sports, gymnastics, doing basic movements, dancing, and so on. Movement activities can develop various abilities or skills of children, both related to body movements or motor skills, but also affect children's attitudes and mentality. In addition, movement activities can also develop children's creative thinking skills, such

as research conducted by Cheung (2010) that creative dance activities are designed based on four aspects: (1) theme introduction; (2) acquire and explore movement skills; (3) creation and expression; and (4) performance and appreciation. The results showed that the response of children's movements became more varied and always surprised the teacher.

Braindance, developed by Anne Green Gilbert is an effective full-body and brain warmer for all ages. It consists

✉ Corresponding author:
E-mail: elindrayetti@unj.ac.id

of eight movement patterns that connect the central nervous system. By moving through this pattern can provide oxygen throughout the body and reset the brain for children and adults who do these activities (Gilbert, 2019). Another opinion about braindance movement activities, according to Chiang (2017) explains that braindance is a series of progressive and controlled physical movements and is based on eight main movement patterns of brain development.

The next research is movement activities in the context of physical education in the school environment which are carried out with basic movement exercises and sports games using tools such as balls, slides, spinners, teeter-totters, sandboxes, and others. The activities carried out are more aimed at physical fitness and supporting children's psychomotor development and have an impact on students' cognitive, creativity, and social and emotional development (Lykesas et al., 2020).

In contrast to traditional dance-based braindance which was modified and developed using the basic movements of Minang dance in previous research (Yetti et al., 2019) it refers to eight (8) braindance movements that combine gymnastics with the basic movements of Minang traditional dance, which are adapted to movement abilities of early childhood and accompanied by traditional Minang idiom music. So that it gives a different feel from the original braindance and is implemented in early childhood who come from the same culture, namely Minang, where children are very familiar with the form of Minang dance and the accompanying music. This is in line with Lykesas et al. (2020), which shows that a braindance program based on the analysis of traditional dance moves by Laban implemented and educational programs for children in Greece is also important to improve structured, organized education.

Creativity in a changing world has been considered important in various fields such as technology, art, economics, sociology, and education (Kanematsu &

Barry, 2016). Creative thinking skills need to be developed from an early age so that children are trained in generating new ideas and being able to solve problems (Carroll & Howieson, 1991). Along with the increasing interest in creativity, Early Childhood Educators (ECEs) need to find ways to strengthen the creative potential of early childhood. The results also show that the emergence of creative behaviors, such as increased freedom of expression, a tendency to explore and experiment, and questioning what is generally accepted, is considered a consequence of implementing music and movement education programs (Chronopoulou & Riga, 2012). Several experimental studies have delivered valuable information about the design and philosophy of educational programs and the methods of teaching music and movement activities in kindergartens (Lobo & Winsler, 2006; Moreno et al., 2011; Tsompanaki, 2019; Williams, 2018).

Dance involves the learner in the process of knowing through the transformation of concrete experiences, moving creatively, reflecting on their own or others' movements, evaluating them, and forming new meanings (Vygotski, 2012) about movement and the creative process. Dance activities need to be done to develop imagination skills which are fantasy situations, and it is important to offer context to children in self-expression (Chappell, 2007). Dance in education, art education, culture, social, multicultural, and multidisciplinary has benefits for children and makes children develop in self-knowledge, self-esteem, autonomy, the relationship between feelings, thoughts, and actions. Children can control their feelings and thoughts, develop communication skills, develop trust with others, and develop collaborative skills (Tsompanaki, 2019). Especially during the Covid-19 pandemic that hit the world, it is a situation that requires a lot of human creativity to survive. Cultivating creative thinking skills from an early age is important to prepare the younger generation to face bigger obstacles (Glaveanu et al., 2020). Online teaching

can be seen as a major change that dance educators are facing due to the COVID-19 pandemic.

Over the past few years, there has been much discussion on technology and dance education, with scholars advocating the effective application of technology in dance education and dismantling the limitations of technology in dance education (Hong et al., 2020) including the learning of artistic performance, is becoming increasingly popular. The research on the acceptance of artistic performance through social media is accumulating. Therefore, this study employs an integrated approach based on the technology acceptance model (TAM. Teachers also share their collective experiences about the types of hardware or technological tools that can enhance a child's experience in dance education (e.g., wide-angle lenses; about the best applications of portable wireless speakers; the best ways to use music and sound while talking, using a webcam with movement detectors, using dual screens, preparing the study room for better viewing). The creativity of the experts makes thoughtful and informative material and helps hundreds of dance educators hungry for ideas on how to provide effective, engaging, and accessible distance dance instruction to both students and dance educators (Schmid & McGreevy-Nichols, 2021). The learning of children who are confined during the pandemic requires different stimulation to improve various aspects of development (Singh et al., 2020).

Traditional dance is a type of cultural expression that combines physical exercise, social relations, as well as personal and emotional expression. All these aspects combine to create a comprehensive experience that delights people and increases their willingness to participate. Structured movement patterns are performed in response to rhythmic stimuli in this type of dance, which allows self-expression (Chatzopoulos et al., 2021). Like folk dance in Greece, it is an inseparable part of society and is performed at every important event in life. Traditional Greek dance has

been shown to offer psychosocial benefits in several studies (Georgios et al., 2017). Likewise, braindance based on Minang dance basic movements developed from traditional Minang dance idioms also has uniqueness in terms of movement because it combines gymnastic movements with the basic movements of Minang dance and Minang music accompaniment.

One of the early childhood education institutions in Bukittinggi has implemented braindance activities based on the Minang dance basic movements in every child's movement activity. This activity has been running since 2019 until now. Previously, children's movement activities in early childhood education institutions only carried out sports, playing, and basic movements. Since the ECEs implemented the braindance activities based on the Minang dance basic movements, the children looked interested and happy, and the children were able to last longer in the braindance activity. Based on relevant research and the phenomena that have been explained, the purpose of this study is to examine the uniqueness of braindance movements based on Minang dance basic movements and to examine the growth and development of children that appear during braindance activities based on Minang dance basic movements in early childhood movement activities at the Early Childhood Institutions.

METHOD

This study used a qualitative method and was field research at one of the early childhood education institutions in Bukittinggi, West Sumatra Province. There were 15 children aged 5-6 years who were the subjects in this study. The primary data in this study is a braindance activity based on the basic movements of the Minang dance carried out by children aged 5-6 years at the institution. Secondary data is related to the profile and location of the institution.

The primary data sources are teachers and parents, while the secondary data sources are the principal of the Early

Childhood Institution. The research team collected data through interviews, observation, and documentation. The research team carried out structured observations with the stages: 1) the location of the Early Childhood Institution, 2) observing the process of learning activities, 3) braindance activities based on Minang dance basic movements, 4) time duration and schedule for the implementation of braindance activities based on Minang dance basic movements. Furthermore, the research team conducted interviews with teachers and parents in a structured manner with the stages: 1) planning interviews; 2) conducting interviews; 3) collecting interview data; 4) recording and evaluating activities after the interview. Furthermore, the collection of documentation data was carried out with the stages: 1) compiling a list of documentation, 2) taking data with pictures and videos, 3) collecting documentation data. Then after collecting the data, it is continued with data analysis using the model of Miles et al. (2014) with the stages: 1) data condensation, 2) data presentation, and 3) concluding. Validation of research

data was carried out by triangulation of techniques, sources, and time.

RESULTS AND DISCUSSION

Based on research conducted on braindance activities based on the basic movements of Minang dance conducted at one of the early childhood education institutions in Bukittinggi, the data and discussion can be described as follows.

The Uniqueness of Braindance Movement Based on Minang Dance Basic Movement

The results of the study of the uniqueness of braindance based on the basic movements of Minang dance and its difference from the braindance developed by Gilbert (2019), can be seen in Table 1.

Based on the observations of the braindance activities based on the Minang dance basic movements contained in Table 1, in principle, the motion has the same motion motif as the original braindance but is modified and stylized by using the Minang dance basic movements which

Table 1. Summary of Data Analysis

Type of Braindance of Minang Dance Basic Movement	The Uniqueness of Minang Braindance Movement	Type of Braindance Movement	Braindance Activities (Guilford)
<i>Sambah</i> motion	Stylized braindance movements based on the Minang dance basic movements <ul style="list-style-type: none"> • The activity is performed by dancing the movements of the hands, feet, body, and head following the basic movements of Minang dance starting from movement 1 to 8. • Movements are adapted to the movement abilities of children aged 5-6 years, and children can also develop movements according to their imagination. • Minang braindance movement accompanied by Minang nuanced music. 	Breath	Moving according to the 8 braindance movements, such as doing gymnastics.
<i>Pitunggua</i> motion		Tactile touch	
<i>Lapiah Jarami</i> motion		Core distal	
<i>Pijak baro + Gelek</i> motion		Head - tile	
<i>Langkah Panjang</i> (ling step) motion		Upper lower	
<i>Cabiak kain</i> motion		Body half	
<i>Tangan silang - langkah silang</i> (handcross-cross step) motion		Cross lateral	
<i>Alang Tabang</i> motion		Vestibular	

have the characteristics of *pencak silat* motion and are more dynamic and provide refreshment on the body. The musical accompaniment used is Minang traditional idiom music. Then, the braindance is applied to children who come from the same culture, namely Minang.

Growth and Development of Children Participating in Minang Braindance Activities

Children's Motor Skills

Based on research data related to braindance activities based on Minang dance basic movements, the findings show that children's motor skills improve well. This indicates that dance helps children improve coordination, balance, flexibility, and control over their movements. Kaufmann and Dehline (2014) explain that dance increases stamina and physical strength. Recognizing the center of gravity and shifting muscle tension during movement provides refinement and aesthetic qualities for a pleasurable physical activity. One of the main skill components of dancing is sensorimotor synchronization, which is defined as the coordination of rhythmic movements with external rhythms (Repp & Su, 2013). The opportunity to dance is also an interesting means to help young children improve their balance skills (Chatzihi-dioglou et al., 2018) we compared an experimental group of preschool children ($n=22$; mean age=5 years, 8 months. This requires great attention from early childhood educators (ECEs) to implement more specific programs to children's brain development, such as modified brain dances.

Coordination of Movement, Brain, and Feelings

This study presents that children can integrate movement with the brain and involve feelings. This can be seen when the child moves, namely awareness of the position of the motion with control carried out by the brain, as well as facial expressions that describe the child's feelings, because rhythmic synchronization,

balance, and reaction time of movement are important factors for the success of the dance (MacPherson et al., 2009). Kinesthetic intelligence is related to body movements produced by the brain in the form of knowledge about the regulation of body movements (Gardner, 2008). The basic movements of Minang dance, such as the Long Step or upper-lower (braindance) can increase emotional stability, and the *cabiak kain* motion or body stops functioning to support the horizontal vision. This movement is related to the ability of imagination and analogical reasoning that can overcome fixed thinking patterns and find various alternatives.

Development of Children's Creativity

The next finding is that the basic movement of Minang dance, such as *Lapiah Jarami* or core-distal, is a movement that trains self-awareness of the surrounding environment, and *Pijak Baro* or head-tile is a movement to train reflex head movements as shown in Figure 1. This can be seen when the child moves his head to the right and left; the child can align with body movements. These two movements can develop body alignment and visual acuity so that they can build different thinking skills which are important strategies in adjusting to new circumstances (Nikkola et al., 2020). Divergent thinking can be described as the process of retrieving existing knowledge and associating and combining unrelated knowledge in new and meaningful ways (Marron & Faust, 2018).



Figure 1. The activity of the *pijak baro* motion to train reflex head movements

Another important finding is the *tan-*

gan silang-langkah silang motion or cross-lateral that aims to synchronize the movement of the opposite side of the body and build pathways between the right and left hemispheres of the brain to support the body consciousness and strong thinking. At the same time, the *alang tabang* motion and the vestibular motion are aimed at balance responses and sensory input processing. Both movements can build the ability to find and solve problems. Teaching creative problem solving will give students the right tools to solve various problems in the future rather than helping them solve specific problems (Marron & Faust, 2018).

The research findings show that the results of the analysis of the basic movements of the Minang dance can be modified into braindance for the creative thinking skills of early childhood. Creative thinking skills are among the most sought-after life and work skills in the 21st century. According to research, educational programs that integrate braindance and dance programs have a good influence on children's creative thinking, imagination, and improve the development of rhythm, fluency, flexibility, inventiveness, mental processing, and freedom of expression, even in preschool children (Chronopoulou & Riga, 2012; Theocharidou et al., 2018). However, the demand for creativity exceeds the level of its availability and development (Ritter et al., 2020).

Preschool teachers must provide children with stimulation to spark their imagination, provide opportunities to imagine and explain their ideas, respect the individuality of children, and encourage their different points of view (Dere, 2019). Teachers can carry out various activities to stimulate students' creative thinking skills, such as moving activities. Thus, based on the results of interviews and observations, it provides an overview of the results of the analysis of Minang dance movements that are modified into braindance for creative thinking skills for early childhood.

Another important finding is that the Minang dance basic movements such as the *panjang langkah* motion or upper-

lower can improve emotional stability, and the *cabiak kain* motion or body halt functions to support the horizontal vision. These movements are produced by moving the body's upper half or the lower half. The effect is increased joint function and mobility and maintaining body stability and expression in movement. Aligned posture can be a major source for children's skill development and enjoyment (Lykesas et al., 2020). This movement is related to the ability of imagination and analogical reasoning that can overcome fixed thinking patterns and find various alternatives (Sun et al., 2020). The communicative potential of dance is found in its ability to activate the whole body under multiple terms of description through the collaboration of all the senses. It also helps children develop their psychomotor, cognitive, creative, social, and emotional skills and their connection and communication skills with their peers (Lykesas et al., 2009).

A further important finding is that the cross-hand motion harmonizes movements of the opposite side of the body (cross-lateral movement), establishes pathways between the right and left hemispheres, and supports body awareness and strong thinking. At the same time, the *alang tabang* motion and the vestibular motion are intended for balance responses and sensory input processing. Both movements can build the ability to find and solve problems. Teaching creative problem solving will give students the right tools to solve various problems in the future and not help them solve certain problems (Kasani-Vahid et al., 2017).

Teaching dance can shape the perception of action and the application of its nerves in the brains of young people and adults (Kirsch et al., 2018). Therefore dance training is of special urgency at this time, especially during the Covid-19 pandemic, which has taken a lot of happiness for most people. Braindance with a variety of movements (Gilbert, 2005) and accompaniment music with traditional idioms will bring people to a happier atmosphere because of familiar local music. Attention should

be paid to developing learning techniques for more efficient forms of dance teaching, always emphasizing creative teaching approaches and in particular, practices that enhance students' expressive capacity in the school environment (Lykesas et al., 2020).

Gilbert's (2019) research finds that children develop and improve their proprioception, memory, eye-focusing ability, balance, behavior, and motor skills during the first year of life. By performing and repeating eight basic movement patterns (braindance), children will get positive results for their overall progress as an educational process (Gilbert, 2019). So that the results of this study are expected to provide an overview for teachers and parents that movement activities such as dance related to braindance and created with basic movements in Minang traditional dance can build creative thinking skills in early childhood. In addition, the basic movements of Minang dance which are identical to *pencak silat* are self-defense movements that can develop children's sensitivity to situations (Asriati et al., 2019).

Braindance Based on Minang Dance Basic Movements as a Fun Activity

Minang braindance activities make boys and girls happy when doing these movement activities. The braindance activity based on the Minang dance basic movements carried out by children aged 5-6 years at one of the early childhood institution in Bukittinggi, was carried out in the form of dance movements and accompanied by Minang nuanced music, so that the children looked cheerful in expressing the movements because Minang dance is very well known by early childhood children in the Early Childhood Institution, and musical accompaniment uses Minang nuanced music, as shown in Figure 2.

The findings in this study explain that the basic movement of Minang dance is the *sambah* motion or breath motion which is done by regulating the breath serves to relieve feelings of stress. This breathing movement requires a way to inhale

deeply through the nose to fill the stomach, diaphragm, lungs, and exhale through the mouth. The flow of oxygen to the brain is increased, allowing exercise to flow effortlessly, minimizing stress, leaving the brain and body refreshed. Breath flow also provides the basis for movement skills and is very important for emotional balance so that it creates a sense of pleasure (Lykesas et al., 2020).



Figure 2. Braindance activities based on the basic movements of Minang dance

The *pitnggua* motion or tactile-touch motion serves to develop body awareness and sensory integration. The technique of introducing dance to children as early intervention has been widely studied. So now it can be seen how dancing will naturally build and strengthen one's self-confidence and self-esteem, help further reduce feelings of tension and stress (Gurusathya, 2019). Feelings of comfort in children can develop independence and also have the confidence to appear in public because dance activities can build confidence and encourage the development of children's potential (Chappell, 2007). Braindance creations can be used as a warm-up or primary exercise with all ages and at all levels of learning as they contribute to harmonizing the body, resetting the central nervous system, developing focus and concentration, releasing stress, and improving social skills (Lykesas et al., 2020).

CONCLUSIONS

The most important substance obtained from the research results related to

braindance based on the basic movements of Minang dance is that it has uniqueness in terms of movement that is modified and created through stylizing motion into a 'brain dance.' Braindance activities based on the Minang dance basic movements carried out by children in activities bring out children's growth and development such as better motor skills, foster feelings of pleasure and confidence, build coordination of body movements, brain, and feelings, increase awareness of body movements, and develop creativity in children. The results of this study also show that movement activities such as brain dancing based on the basic movements of Minang dance for early childhood can be carried out with the aim that children know and love their culture more, namely by providing stimuli related to Minang music and movements, as well as traditional arts that become familiar with the culture. The prospect of developing this research is the application of media with local cultural content that can assist teachers in developing various aspects of children's growth and development and can create various forms of dance learning models and media for children.

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