

BRAIN GYM

Improving Creative Potencies in Early Childhood in Social Diversity by Traditional Culture

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Creative behavior in early childhood has not been developed optimally yet, because creative potencies are ignored, in fact, there is a tendency that is turned off by technology. Traditional games and culture depicting dynamic behavior are less socialized to the early children. The conditions of the early children with a variety of electronic games and mass media programs bring about creative behavior not developing optimally. There is even a tendency to behave emotionally and destructively starting to become a phenomenon that continues at early childhood ages.

Early childhood is a 'gold' period which his/her potencies should be developed optimally, one of which is to make the child become a creative person. Personality is the overall behavior of individual that is the result of interaction between bio-psycophysical potencies (physical, physic and social) carried since birth and, being trained by a series of environmental condition. The personality is revealed on actions and deeds as well as psychological mental reaction, if there is a environmental stimulus. The development of creative potency in early ages is performed by family and schools as a reflection of change dynamic in the society. Family is the main and the first place to grow and flower the children, while schools are educational institutions that will strengthen the ability of child development.

The way to optimize creative potencies in early ages with social diversity is by developing the brain function optimally through the introduction of Brain-Gym since brain is a window to learn and work. Brain-Gym consisting of 26 movements can stimulate the three brain dimensions; those are laterality, focus, and concentration dimensions that support the development of emotional skill, social skill, intellectual ability, and physical ability. In particular, the development of creative potencies can be done through updated laterality movement that is balancing right-left brain, related to left and right brain dimensions associating with communication ability. The development can be performed with fun by integrating in the various of traditional dances in which there are several Brain-Gym movements, such as Pendet dance (Bali), Kuda Lumping dance (Java), Poco-poco dance (Menado), Lilin dance (Padang) and Saman dance (Aceh).etc.

INTRODUCTION

The role of education for early children is a shared responsibility among family, society, and government. Child's personality will be formed as well as in a school since he/she gets new experiences in the new society. However, the major environment that has a

role in the education of a child comes from the nucleus family of father, mother, brother, and sister. This environment is the most environment having responsibility in educating a child.

The role of education given by parent gives basic education for their children. In this case, socialization will have influences on the formation of children's personality. The role of education in early age does not only give many learning experiences as happens in adult ages but also is more inclined to optimize the development of intelligence quality. (Anne Ahira, www.AsianBrain.com) However, the awareness of the importances of early childhood education has been not optimal yet. Recently, early childhood education has not enabled to develop understanding, development and optimal opportunities for every child to develop his/her potencies inside in a balanced manner, particularly in forming a creative person. Because of that, early childhood education should be designed optimally, regardless of social culture background. In this case, one of important aspects that needs to be studied how parents, schools, and society are able to develop early children potencies without being influenced by social culture diversity, that is by optimizing the functions of brain in a balanced manner, so that the children will be educated more intelligent, more creative in this process since brain is a window to learn and work.

DISCUSSION

Creative Behavior in Early Childhood

The role of education for early children is a shared responsibility among family, society, and government. Family as the smallest social unit is the first and major educational environment, in which family is the most responsible environment in educating their children. Education given by parent should provide the basis for education, socialization, and life in society. The pattern of attitudes, behavior, values established by parents through parenting are the fundamental basis of the subsequent children's development personality and behavior.

In this case, family is still a primary group to lay the groundwork of personality in the family. Parents have important role to create intimate and long-lasting interaction system, that can be tagged by personal loyalty, love and affection relationship. The parents' role is to improve their children's mental attitude. The formation of children's personality and creativity is the capital of their self-adjustment and environment, and of course it gives impact for the family's overall welfare.

Early age (0-5 year) is the crucial age in the formation of children's characteristic and personality. Early age will determine in the next growth and development of human being because at this age children's fundamental personality is formed. Besides, children also experience one of crisis called crisis of basic personality formation. If they get good education, strong fundamental personality will be formed. On the contrary, if they get wrong education, bad personality will be formed.

Generally, people think that childhood is the longest period in a person's life, when the person is powerless and depends on someone else. According to Hurlock (1980), childhood is begun after a baby who is full of dependence approximately two years old until the age when children are sexually mature, that is 13 years old for women, and 14 years for men. Childhood is divided again into two distinct periods; those are early and late childhood. The early age is from 2-6 years old while the late age is from 6 years old until when children are sexually mature. This dividing line is important, especially for children who are before reaching schooling ages are treated in a different way, not like a treatment for children who had entered school. On the other side, some educators say the early age of childhood as pre-school age, in which Monks and Haditono (2004) are in line with this.

The function of early childhood education is not merely to provide a variety of learning experiences such as in adults, but it is more work to optimize the development of intelligence capability. This includes the entire process of psycho-social stimulation that is not limited to the classical learning process (in the classroom).

Children at an early age usually learn and study in their home or join some educational activities in an educational institutions such as pre-school playgroup, kindergarten or nursery, not in a formal educational institutions, such as Elementary School (SD). According to Setiawan (2002), which refers to the theory of Piaget, early age can be said as a period that is not demanded to think logically, which is marked with these following thoughts:

- Think in concrete, in which the child can not understand or think about something abstract (love and justice). Berpikir secara konkrit, dimana anak belum dapat memahami atau memikirkan hal-hal yang bersifat abstrak (seperti cinta dan keadilan)
- Realism, that is a strong tendency to response everything as a real or tangible thing.
- Egocentric, that is to see everything only from their own perspective and hard to accept explanation from the other.
- A tendency to think simply and not easy to accept something complex.

- Animism, that is a tendency to think all existing objects have human qualities as their own qualities.
- Central, that is a tendency to concentrate on one aspect of situation.
- Children at early age can be said that they have high imagination, which this is known as the early emergence of the seeds of creativity in children.

Thus, it can be concluded that children at early age are children aged 2-6 years old, who are in the development stages of early childhood, having the characteristics of concrete thinking, realism, simple, animism, central, and full of imagination. The main objective of early childhood education is to unify education and learners' creativity. The aim is to develop students' potencies, including the potency to give a creative response to things around their life. Education is not an effort to accumulate the students' knowledge. Essentially, education should be interpreted as an attempt to help children to be able to help themselves, known as "Hilfe Zur Selbsthilfe".

Early age determine human growth and development further because basic personality is formed at early age. At that time children experience one of crisis, namely the crisis of basic personality formation. Usia dini menentukan pertumbuhan dan perkembangan manusia selanjutnya. Sebab, pada usia ini dasar-dasar kepribadian anak telah terbentuk. Pada masa itu anak-anak mengalami salah satu krisis yang disebut krisis pembentukan dasar-dasar kepribadian. If they get good education, strong fundamental personality will be formed. On the contrary, if they get wrong education, bad personality will be formed.

Cultural Diversity & Creativity

The tendency of the development of early childhood is not always same because children grow up in different social cultural environment, so that the development is affectively not same. This tendency becomes part of society that happens continuously. Even, these differences become the basis for the parents and society to distinguish the process of socialization to children at early age. As consequence of this, children at early age are not able to develop their potency optimally. In this case, it needs awareness that social-cultural diversity is not a distinguishing factor in the early childhood education but rather as a cultural capital for the development of creative ability of children from an early age.

Understanding the diversity inherent in one's own culture was a prerequisite for understanding worldwide cultural diversity. Each culture must therefore seek to understand itself as one and diverse. Nevertheless, in mapping internal diversity a special effort was required to ensure that cultural resource maps did not create division lines that could lead to ghettoization or even cultural apartheid.

Cultural resources, being permeable and dynamic, crossed state borders; it was therefore appropriate for cultural mapping to be participatory and cross-border, as recommended by UNESCO. Recognize the fundamental rights and duties of individuals, who would thus be encouraged to take responsibility for the exercise of those rights and duties, which would inform their daily behaviour; ensure equal enjoyment of citizenship within the same country, since it must be equal for all; find common denominators for peaceful coexistence in a world of inequalities and disparities and of extreme poverty alongside opulence, in particular in urban areas. Understanding the diversity inherent in one's own culture was a prerequisite for understanding worldwide cultural diversity.

Cultural diversity is the variety of human societies or cultures in a specific region, or in the world as a whole. (The term is also sometimes used to refer to multiculturalism within an organization. As well as the more obvious cultural differences that exist between people, such as language, dress and traditions, there are also significant variations in the way societies organize themselves, in their shared conception of morality, and in the ways they interact with their environment. It can be argued that cultural diversity may be vital for the long-term survival of humanity; and that the conservation of indigenous cultures may be as important to humankind as the conservation of species and ecosystems is to life in general (Lydia B. Kerwin, 2009).

Culture and creativity are the two things that are inseparable. Even in the process of community life, a thriving culture always attaches to creativity dimension. Creativity is a condition, attitude or a state of the highly specialized nature, in which it is almost impossible to be completely formulated. Creativity can be defined in many different statements depending on who and how to highlight them. The term of creativity in everyday life is always associated with a special achievement in creating something new, discovering some ways to solve a problem that can not be found out by most people, new ideas, and viewing the various possibilities.

According to Solso (Csikszentmihalyi, 1996) creativity is a cognitive activity that produces a new perspectives on an issue or situation. Drevdal (in Hurlock, 1999) describes creativity as a person's ability produce a composition, a product, or whatever ideas basically new and previously unknown by the creator. This creativity can be an imaginative activity or synthesis of ideas which its result is not only a summary, but also include new system creation and combined information obtained from previous experience, and a grafting of a long relationship into a new situation, and may include a new correlation creation. The forms of creativity may be the product of art, literature, scientific research, or may be also procedural and methodological. So according to these information, creativity is an imaginative activity that its result is the formation of combination obtained from previous experiences into new, meaningful, and useful. Munandar (1995) defines creativity as the ability to create new combinations, new associations based on the previous materials, information, data or elements into something meaningful and useful.

From above explanations, it can be concluded that creativity is the ability to create something new or a new combination based on the previous elements into something meaningful and useful. Suharnan (in Nursisto, 1999) says that there are some main elements of creativity that can be described as following:

- a. Activity of thought; creativity always involves the process of thought within oneself. This activity is a mental process that is not visible to the others, and only felt by the person concerned. This is complex since it involves a number of cognitive activities such as perception, attention, memory, imagination, reasoning, decision-making, and problem-solving.
- b. Find or create something that includes the ability to connect two or more ideas that previously seem unrelated, the ability to change the existing view and replace it with another view, and the ability to create a new combination based on concepts that already exist in the mind. This activity find something meaningful that involves imagination activity, that is the ability to manipulate a number of objects or situations in mind before something new is expected to appear
- c. The nature of new or original. Generally, creativity is viewed from the existence of a new product. This product is regarded as a creativity work if it has been never created before, amazing work, and be able to be enjoyed by the community.

Observing the above description it can be concluded that the major elements of creativity are 1) activity of thought, that is a mental process that can only be felt by the person concerned; 2) finding and creating, that is an activity aiming to find something or creating something new; 3) original, a work of creativity should contain new components in one or

more things, and 4) useful or valuable, that is a work of creativity has a specific purpose or benefit.

For early childhood, playing is a fun and spontaneous activity so that it gives a sense of psychological safety for children. Moreover, if they play in the atmosphere of active, they will get a big opportunity to explore in order to satisfy their curiosity, they will freely express their ideas through their fantasy, drama, constructive playing and many more. Feeling of safe and psychologically free is an important condition for the development of creativity. Children who are taken literally, appreciated their uniqueness, not so fast to evaluate will feel safe psychologically, and of course children who are given the freedom to express their ideas also feel the same. The state of playing like that is so closely associated with efforts to develop children's creativity.

Playing gives children the opportunity to develop their creativity. They can experiment with their new ideas either by using game instrument or not. Once they feel able to create something new and unique, they will do it again in other situations. Creativity gives children pleasure, and great personal satisfaction, and of course rewards that have a real impact on their personal development. Being creative is also important for children at early age because it adds flavor in their games. If creativity can make the games more fun, they will feel happy and satisfied.

Playing also gives children another opportunity, that is the opportunity to express their creative impulses as an chance to feel the objects and a challenge to discover something in new ways, find the use of thing in different ways, find a new relationship between something and something else, and interpret it in many alternatives. Besides, playing also give children an opportunity to think and act imaginatively, and have full of imagination that is closely related to the development of children's creativity. Various playing forms that can help develop creativity are storytelling, drawing, playing simple music instrument, playing with wax, playing with paste text, playing with beams, and **exercise**. One of the exercise that is good and fun for early childhood is Brain Gym exercise.

Brain Gym For Improving Creative Potencies

The activity of children at early age that has not been developed optimally is that introducing Brain Gym to them. In fact, Brain Gym is a part of exercise that is fun and very useful to children's development.. By means of Brain Gym, the development of children's potencies is not based on the social-cultural uniformity or diversity, but rather on

strengthening the brain functions optimally. Brain Gym® is a simple and enjoyable set of movements which we use with our students in to enhance their experience of whole brain learning. These activities make all types of learning easier, and are especially effective with academic skills” .Dr. Paul Dennison. There are no learning disorders, only behaviours which tell us what a child is needing if we are willing to listen” Dr. Paul Dennison, “Brain Gym is a movement based learning program that provides immediate access to the physical skills of learning hat include self-control, sustained attention and motor dexterity for improved performance and confidence in the areas of academics, comprehension, creativity and self-expression.” Deborah Scott Studebaker , in the first months and years of life, brain cells form learned connections in many parts of the brain. These connections are the complex circuits that shape our thinking, movement, habits, feelings, and behaviours. Experience and stimulation during the first years of life profoundly influence intelligence, creativity, language development-and even later reading and maths skills. What happens during these early years will influence a child’s personality, academic ability (maths and languages), sports ability as well as any learning difficulties and or behavioural problems that they might develop. If an adult or child has difficulties which are holding them back, then Brain Gym offers a programme to easily and quickly re-pattern or re-educate these connections to facilitate the person to overcome their blockages to success in developing their intelligence, creativity, language development-and even later reading and maths skills .

When current brain research is condensed what emerges are simple, easy to understand findings that, for the most part, reinforce what we know intuitively. Following is a list of the most relevant findings.(<http://www.mindandbodycoach.net/id10.html>)

- a. Brain development is reliant upon interplay between genes and environment. There is no longer the debate whether our learning is more dependant on nature or nurture. Research indicates that nature lays down a complex system of brain circuitry, but how that circuitry is wired is dependant on external forces such as nutrition, surroundings and stimulation
- b. Early experiences contribute significantly to the structure of the brain and its capacities. The quality, quantity and consistency of stimulation will determine how nerve fibres within the brain (**synapses**) develop and function. This is true for both cognitive (**gaining of knowledge and perception**) and emotional development (**the learning about different feelings, social behaviour and appropriate emotional response**), and the effect is life-long.
- c. Early interactions, how we relate and respond, directly affect how the brain is "wired". Children learn in the context of important relationships. Brain cell connections are established as the growing child experiences the surrounding world and forms attachments to parents, family members, and caregivers. Warm, responsive

care appears to have a protective biological function, helping the child weather ordinary stresses and prepare for the adverse effects of later stress or trauma. Non-responsive care, absence of care, drug abuse, and trauma can all have an adverse effect on the child's emotional well-being.

- d. Brain development is not a step-by-step process; it is more like a spiral with waves or windows of opportunity. Learning continues across the life cycle; however, there are windows of opportunity during which the brain is particularly efficient at specific types of learning. Certain critical periods are conducive to developing specific skills. For example, children are most receptive to second language learning from birth to ten. Children are particularly in tune with music between the ages of three and ten.

For more than 30 years and in over 80 countries, Brain Gym® has been helping children, adults, and seniors to: Learn anything faster and more easily; .Perform better at sports, arts and creative activities; Be more focused and organized moving forward; Start and finish projects with ease and on time; Overcome learning, behaviour and others personal challenges; Reach new levels of excellence in business, academics, sports etc.; Improve the quality of communication and build relationship.

Enabling adults and children to easily and quickly learn how to use Brain Gym® to unlock their true potential. Making all kinds of movement and learning easier. Facilitating adults and children to enjoy achieving their goals in real time. Brain Gym® has been reported to help people of all ability levels to clear internal blockages facilitating them in business, education, sports and creative pursuits to to manage, communicate, organise, learn and move to their true potential.

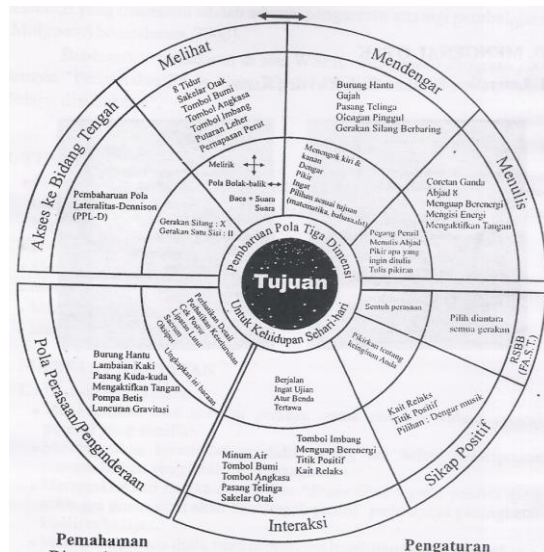
Brain Gym is a program of 26 physical movements that enhance learning & performance in all areas. Developed in the 1970's through the work of educators **Dr.Paul & Gail Dennison** in response to their quest to seek more effective ways to help children & adults with learning difficulties. Brain Gym is an innovative new approach to learning that was drawn from a wide body of research from developmental specialists focused on the role that physical movements played in enhancing learning abilities. Brain Gym has received world wide appraisal & is now used in more than 80 countries, taught in thousands of schools & in areas as diverse as the performing arts,athletics & the corporate world. Brain Gym is similar & different to other movement programs in that Brain Gym helps to increase flexibility & coordination, but differs from other programs because it also provides specific activities to facilitate brain function for physical skills required for activities such as reading, writing & spelling.

In nature, the brain's neural pathways & connections are developed through movement. Brain Gym works by promoting specific movement experiences which assist in facilitating optimal achievement of mental potential. All acts of speech, learning, vision & coordination are learned through a complex repertoire of movement. Brain Gym through its specific movement exercises program promotes the efficient communication amongst these many nerve cells & functional centres located throughout the brain's sensory motor system. Learning problems arise when communication between these centres, for example, when the eyes & ears are blocked. Brain Gym exercises stimulate the flow of information within the brain & sensory system freeing the innate ability to learn & function at top efficiency. The physiological basis of how & why Brain Gym works is expanded upon by Carla Hannaford PhD in her book called **Smart Moves** in the Brain Gym books section.

Brain Gym can be used to enhance learning abilities for both excellent learners as well as those who find learning a challenge. Brain Gym incorporates 26 easy & enjoyable targeted activities which are fully explained in the **Brain Gym® Teacher's Edition**. These activities are designed to integrate body & mind and can bring about rapid and often dramatic improvements in concentration, memory, reading, writing, organising, listening, physical coordination & more. Brain Gym can also help overcome *Attention Deficit Disorder (ADD) & Attention Deficit Hyperactivity Disorder (ADHD)*, kids with special needs, brain damage & severe learning challenges. These students will positively benefit from Brain Gym as is attested by thousands of families and its long use over many years. Brain Gym is fun & easy to do especially if done to music, we stock a selection of **Brain Gym Music CD's** which can be used to do Brain Gym activities. Brain Gym requires no special talents & can be enjoyed by everyone. (<http://www.braingym.com.au/About-Brain-Gym-pg6639.html>). Dr. Paul Dennison discovered ways to adapt and sequence these movements so they could be effective for older children and adults. The result is a system of targeted activities that enhance performance in all areas – intellectual, creative, athletic and interpersonal.

Dynamics in the Brain Gym movements can be described as follows:

The X=pand Balance Wheel
 Komunikasi
 Dimension Lateralitas
 Pikir/Robot



Dimensi Fokus *Dimensi Pemusatan*
Perasaan/Penginderaan /Pinguin *Emosi / Perenang*

Brain Gym movements consist of three dimensions, those are laterality, focus, and central that can be described as follows:(Elizabeth, 2005):


Dimension	Function	Name of movement
Laterality	It is associated with the left and right brain dimensions related to communication capability. The movement crossing the center line can unify the left brain (rational thoughts) and the right brain (feeling) so that people can be more positive, able to hear with both ears, see with two eyes, write and move smoothly. If this part is not balanced, people will have difficulty to distinguish between left and right, stiff movement, bad writing, hard to read and write.	<ol style="list-style-type: none"> 1. Gerakan Silang 2. Delapan Tidur 3. Coretan Berganda 4. Abjad Delapan 5. Gajah 6. Putaran Leher 7. Olangan Pinggul 8. Pernafasan Perut 9. Gerakan Silang Berbaring 10. Mengisi Energi 11. Membayangkan X
Focus	It is associated with the front-rear involving the brainstem related to concentration, understanding and comprehending capability. The movement stretching the muscles in the neck and along the legs can launch the energy from the back flowing to the front, in which the capability of expressing themselves is located. If this part is not balanced, the muscles in the neck and the shoulder are tense, less enthusiasm of learning, more easy to get confused, hard to comprehend something, and less able to express themselves.	<ol style="list-style-type: none"> 1. Burung Hantu 2. Lambaian Tangan 3. Lambaian Kaki 4. Pompa betis 5. Luncuran Gravitasi 6. Pasang Kuda-kuda
Central	It is associated with the top-down involving the midbrain related to the capability to manage and organize something. The particular movements can multiply the energy to connect the lower part of brain (emotional information) with the cerebellum (abstract thoughts). If this part is not balanced, people will be hard to concentrate, having less confidence, being coward, ignoring feelings, and having difficulty to jump.	<ol style="list-style-type: none"> 1. Minum Air 2. Saklar Otak 3. Tombol Bumi 4. Tombol Keseimbangan 5. Tombol Angkasa 6. Menguap Bernergi 7. Pasang Telinga

Traditional Dances in Brain Gym Movements

The basic movements of Brain Gym are easy and simple. The most important is that actually there are many Brain Gym movements in various dances around the world, especially in Indonesian traditional dances. Nevertheless, recently Indonesian children are less interested in the traditional dances. Moreover, the role of family to build a sense of culture through traditional dance activity is no longer the focus of children's education. Even the educational institutions, such as schools, less develop traditional dance activity as the required extracurricular activity for their students. This fact is quite unfortunate because children become less develop their creativity optimally. In fact, the dynamics in every single movement of traditional dances is one of parts of the dynamics to balance the brain function.

To develop children's creative potencies is needed to introduce and practice Brain Gym movements early. Then, the next step is to build as sense of fond of traditional dances because in every single motion of traditional dances does not only develop the brain, but also form dynamic behavior in children's body and mind early as a capital to be creative and dynamic children. Brain is a window to think and work that is necessary in one's life journey.

Based on my experiences , I think there is a relationship between Brain Gym and some of traditional dances. To support my opinions, the following table describes some examples of traditional dances having some Brain Gym movements:

Brain dimension	Example of Brain Gym movements
Lateralitas	 <p>The illustration shows three children performing Brain Gym movements. On the left, a girl is in a dynamic pose with one leg raised and arms outstretched, labeled 'Gerakan Silang'. In the middle, a boy is sitting on the ground with his legs crossed and arms raised, also labeled 'Gerakan Silang'. On the right, a boy is standing with his arms raised and a large oval shape drawn around his head, labeled 'Gajah'.</p>



Traditional
Dances



Tari Jawa - bondan



Tari Lilin- Sumatera



Tari Rampak Gendang



Tari Kecak- Bali



Tari Golek - Jawa



Tari Madaleka –
Lombok



Tari Merak – Jawa Barat

Focus



Burung Hantu



Mengaktifkan Tangan



Pempa Betis



Traditional Dances



Tari Sumatera Utara



Tari POCO-poco Sulawesi Utara



Tari Saman , Tari Cakalele, Tari Anoman, Tari Jaranan





Tari Dayak- Kalimantan



Tari Papua



Tari Maluku Tengah

Central	 <p style="text-align: center;">Sakelar Otak Tombol Bumi</p>
	 <p style="text-align: center;">Tari Pendet- Bali Tari Serampang dua Belas Sumatera</p> <p style="text-align: center;">Tari Saman- Aceh Tari Persembahan –Sulawesi</p>

From the example above it can be concluded that some basic Brain Gym movements merge actually in the traditional dances. Because of that, families and schools, and society have to dig out a traditional culture that is able to optimize the brain function in a balancing way, so that children are really ready to face life challenges by using all brain dimensions.

CONCLUSION

Brain Gym movements is needed to introduce early, especially for children at early age in order that children develop their potencies optimally by using the brain dimensions optimally. By means of Brain Gym, children’s creative potencies can be optimized regardless of viewing children’s social-cultural diversity. Children at early age can grow their potencies up more optimally as a creative kid if the brain function, especially the left-right brain, is

handled step by step by using pleasurable ways in the process, and they are also introduced traditional dances as the development of Brain Gym basic movements.

The writer is interested in researching this topic. First, there is no research about this that explore this relationship between traditional dances movement and Brain Gym, second, it is to inform society that there are many Indonesian traditional dances that are able to improve children's creative potencies.

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