

# Proceeding

## INTERNATIONAL CONFERENCE ON SPORT

GOR UNY, Saturday, 12<sup>th</sup> DECEMBER 2009

Theme

The Development Of Sport Culture  
To be Indonesian Civilization



Faculty Of Sport Science  
Yogyakarta State University



ISORY DIY



Ministry of Youth and Sport  
Republic of Indonesia



Indonesian Sport  
Deans Forum

**THE OPENING SPEECH  
ON INTERNATIONAL SEMINAR ON SPORT  
DECEMBER 12, 2009-12-28  
AT INDOOR STADIUM OF YSU**

Assalamu'alaikum wr wb

The honorable speakers, Mr. Prof Dr. dr. James Tangkudung, M.Pd, (Minister of Youth and Sport), Mr. Kostadin Angelov, (Bulgaria), mr. Toho Cholik Mutohir, Ph.D, (Head of ISORI), Mr. Lauren (Athletic Coach from France), and Charlotte (Sport Activist, from Netherland),

The distinguished guest

Ladies and Gentlemen,

First of all, on behalf of the president of YSU, let me express great thank to God (Allah SWT) who gives us opportunities and health, so that we can join this very important international seminar on development of sport culture toward civil Indonesian society. I do hope international sport seminar can gives us valuable knowledge and experiences.

Secondly, it is my great pleasant to express my warm welcoming to al audiences, especially Mr. Prof Dr. dr. James Tangkudung, M.Pd, (Minister of Youth and Sport), Mr. Kostadin Angelov, (Bulgaria), mr. Toho Cholik Mutohir, Ph.D, (Head of ISORI), Mr. Lauren (Athletic Coach from France), and Charlotte (Sport Activist, from Netherland), who are ready to come this occasion for sharing all issues we are concern. I absolutely expect that this forum forum will be beneficial for all of us, not only as practitioners, but also as experts.

Thirdly, let me express my thank to the audiences who are interested in joining this very important seminar. I do hope that all audiences can take more advantages, then implement some related ideas in improving the quality of sport in general, and the quality of sport education for all. Beside that also want to thank to all members of committees who spent much time in preparing, organizing, and controlling this event. I absolutely hope that they can have more academical and managerial advantages.

Ladies and gentlemen,

Sport is veri important in our life, because, sport can make us be healthy and fresh. Healthy person can do everything what he/she wants. Healthy person can do more productive result than others. By having good health, we create more ideas. Late cite rasulullah saying, " A'aqlus saliim fil jismis saliim."

By having awareness of the importance of sport, we have to practice any kind of sport. Let us remember rasulullah saying again: adzdibuu aulaadakum shibaahata warimaayata, means that teach your kids with swimming and throwing.

Even though the contribution of sport for our health is so clear, but in the fact that most people are still reluctant to do exercises. As sport community, we have a responsibility to socialize the sport. How to make a sport as culture? We have to condition by using more effective strategies. First, physically, we have to prepare various facilities for sport activities. Secondly, economically, we have to give the user with non-expensive rate. Thirdly, socially, we have to be ready to serve community as coaches for any kinds of sport activities, culturally, we have to develop sport and the culture.

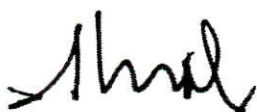
I do hope hat this seminar will have some important result which can be more beneficial for improving of sport education develop by YSU, especially.

Ladies and gentlement,

Once again, let me express my gratitude to all audiences, especially the honorable speakers and the distinguished guest, for paying attention. I absolutely hope that this seminar will run well. Finally, may I officially declare this nternational seminar by saying " Bismillahi rahmaanir rahiim", may Allah SWT always bless us. Amien

Wabillahit taufiq wal hidayah.

Wassalamu'alaikum wr.wb



Dr. H. Rochmat Wahab, M.Pd., M.A.  
Rector of Yogyakarta State University

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## **BRAIN GYM IMPROVES MULTIPLE INTELLIGENCES**

By  
**Hari Yulianto**  
**Yogyakarta State University**

### **ABSTRACT**

*Brain Gym is a program of 26 physical movements that enhance learning & performance in all areas. 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 appraise & is now used in more than 80 countries,taught is 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.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 is based on three simple principles: (1) Learning is a pleasant and natural activity which goes on throughout our whole lives; (2) Learning blocks are caused by the student it's incapacity of coping with anxiety and stress derived by a task which is perceived as "too difficult" ; (3) We are all more or less blocked as far as learning is concerned since we have all learned not to move.*

**Keywords:** *Brain Gym, multiple intelligences*

### **INTRODUCTION**

Brain Gym is a program of 26 physical movements that enhance learning & performance in all areas. 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 appraise & is now used in more than 80 countries,taught is thousands of schools & in areas as diverse as the performing arts,athletics & the corporate world.

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 appraise & is now used in more than 80 countries,taught is 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. (<http://babybraingym.blogspot.com/2008/10/what-is-brain-gym.html>).

### **Mode Of Action Of Brain Gym**

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. Brian Gym exercises stimulate the flow of information within the brain & sensory system freeing the innate ability to learn & function at top efficiency.

### **Game Advantage Of Brain Gym**

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://babybraingym.blogspot.com/2008/10/what-is-brain-gym.html>).

Muscle test and noticing applicable to detect resistance and determines movement what which can balance brain to can apply all potency owned by someone. Why brain gym is required? Between by ( 1) Someone who has made every effort that there are still find difficulties learning causing experiences stress brain; ( 2) Mechanism of integration of brain weakens so that parts of certain brain unable to function; ( 3) Because reflex stress, information received in backside brain difficult to be expressed through brain frontage, so that child of feeling indigent; ( 4) Feeling of indigent and unable to successfully results spirit [of] learning or works decreasing, so that its (the achievement declines status even declines. Pass muscle test is known resistances in body having an in with ability to learn and adding capacity, with brain gym can assist opens parts of previous brain closed or pursued so that learning activity, works and having activity takes place carefully because use all brain (E Demuth, 2009:1).

With existence of cooperation between third of above dimension is expected happened balance of all system causing facilitates in communicating, understanding and arrangement.

While at movement of corporeal freshness with medium rhythms of low impact high intensity adapted for by educative participant capacities of elementary school, without leaving elements: warm-up; core and refrigeration. Combination both creating a multifarious motion dynamics referring to happy, fitness, and study at inuring of different pattern.

### **Purpose Of Doing Brain Gym**

With movements pattern outside from the habit is expected:

1. Forms balance of brain at educative participant.
2. Maximizes in an optimal fashion parts of brain.
3. Balance in slow rotation to quick turn and or on the contrary.
4. Fitness of optimal physical at educative participant.
5. Socializes moving at educative participant.

([http://www1.kemenegpora.go.id/index.php?option=com\\_content&task=view&id=2415](http://www1.kemenegpora.go.id/index.php?option=com_content&task=view&id=2415))

To explain how Edu-K works, the Dennisons describe human brain function in terms of three dimensions: laterality, focus, and centering. Successful brain function requires efficient connections across the neural pathways located throughout the brain. Stress inhibits these connections, while the Brain Gym movements stimulate a flow of information along these networks, restoring the innate ability to learn and function with curiosity and joy.

The Laterality Dimension pertains to the relationship between the two sides of the brain - especially in the midfield, where the two sides must integrate. Laterality skills are fundamental to reading, writing, listening, or speaking. They are essential for the patterning of whole-body movement, and for the ability to move and think at the same time.

The Focus Dimension describes the relationship between the back and front areas of the brain. Focus affects comprehension - the ability to blend context and details into a full personal meaning and to understand new information in terms of previous experience. Attention disorders (ADD or ADHD) are related to the inability to focus.

The Centering Dimension concerns the connection between the top and bottom structures of the brain. Centering enables us to harmonize emotion with rational thought. Stress can disturb centering and equilibrium, leaving us tense and out of sorts; when we're centered, we feel more grounded and organized.

People of many nationalities enjoy the Brain Gym movements in classrooms and businesses worldwide, as a tool to integrate the brain before learning, work, or sports activities, as well as during breaks. Individuals obtain more specific results in private consultations by setting a goal, doing certain Brain Gym movements to integrate the brain for this activity, and then repeating the activity to validate that the new learning has occurred. The positive results of these private sessions are evident immediately and increase over time.

Brain Gym benefits include improvements in learning, vision, memory, expression, and movement abilities, in both young people and adults. In the classroom, teachers typically report improvements in attitude, attention, homework, behavior, and academic performance for the entire class.

([http://www.braingym.com/index.php?option=com\\_content&view=article&id=2&Itemid=3](http://www.braingym.com/index.php?option=com_content&view=article&id=2&Itemid=3)).


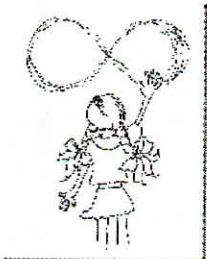

### Brain Gym Is Based On Three Simple Principles:

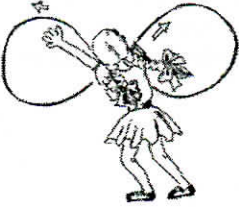
- Learning is a pleasant and natural activity which goes on throughout our whole lives
- Learning blocks are caused by the student it's incapacity of coping with anxiety and stress derived by a task which is perceived as "too difficult"
- We are all more or less blocked as far as learning is concerned since we have all learned not to move.

### Kinds of Movement in Brain Gym

#### Lateralization


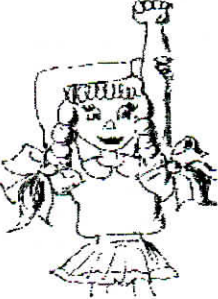

It concerns the way the left and right hemispheres interact. The left hemisphere is specialized in sequential logical operations (language and logics), while the right one allows us a holistic global vision of reality (music and spatiality).

	<p><b>Cross crawls</b> Students alternately move their arms towards the opposite leg and then vice versa. Since each limb is governed by the hemisphere of the opposite side, this exercise facilitates connection between the two hemispheres.</p>
	<p><b>Lazy eight's</b> The activity consists in drawing horizontal eight's in the air with your hands. It activates brain and improves: eye-muscles coordination connection between hemispheres bi-ocular and peripheral vision reading speed.</p>
	<p><b>Double doodle</b> This is a bilateral drawing activity which consists in sketching two images with both hands. It improves these learning skills: understanding of writing symbols spelling accurateness Maths calculations.</p>


	<p><b>The elephant</b> This movement activates the inner ear for improved balance and so integrates the brain for listening with both ears. It improves: listening comprehension and attention short- and long-term memory thinking ability</p>
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**Focalization**

Focalization exercises help students to develop and reinforce those neural paths which link what they already know (which lays in the back of their brain) with the ability to process and express the information (frontal lobes)




	<p><b>The owl</b> The owl's movements improve visual and auditory skills and also head rotation. They lessen the neck tension which develops in distressing conditions. The owl lengthens neck and shoulders' muscles while reestablishing width of movement and facilitating the blood flow to the brain. It enhances: attention and memory.</p>
	<p><b>The active arm</b> The active arm lengthens muscles in the upper part of chest and shoulders. When these muscles are contracted writing and tool controlling skills are inhibited. It activates the brain for: expressive reading diaphragm relaxation and deep breathing hand-eye coordination and tool controlling skills.</p>
	<p><b>The gravitational glider</b> The movement uses balance and gravity in order to lessen tension in the hips and pelvic area thus allowing to student to discover more comfortable postures when sitting or standing up. It betters: reading comprehension mental Maths calculations abstract thinking.</p>


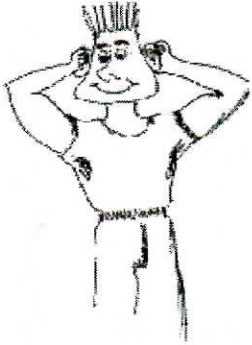
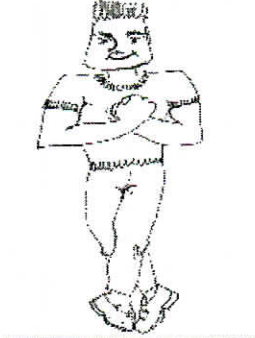
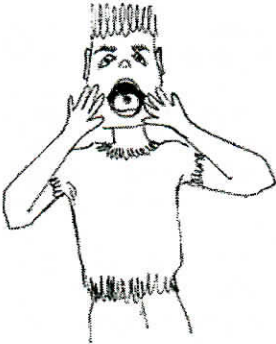


	<p><b>The rocker</b>                  The rocker massages the hamstring and gluteus muscle groups (<i>the bottom, in other words...</i>). It can be very pleasant after hours spent sitting in the classroom. It also stimulates the circulation of the cerebrospinal fluid into the spinal column and activate the brain for:                  study skills                  left-to-right visual skills                  attention and comprehension.</p>
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**Centralization**

These are mostly relaxation exercises which help to reestablish the neural networks between brain and body and, this way, facilitating the passage of electromagnetic flow through the body. These activities help the chemical and electrical processes which take place during mental and physical efforts.

 <p>navel</p>	<p><b>Brain buttons</b>                  One hand massages two spots below the clavicle while the other rests on the navel. The movements stimulates the carotid artery and this way enhances the blood flow to the brain. It activates the brain for:                  reading skills                  memorization.</p>
 <p>earth buttons</p>	<p><b>Earth buttons</b>                  One hand fingers rest on the lower lip while the others stay on the pubic bone. While having the sensation of a better connection between the upper and lower parts of the body the students feels more stable and centered. It improves:                  reading skills.</p>
 <p>balance buttons</p>	<p><b>Balance buttons</b>                  These buttons reestablish balance in every dimension: left-right, above-under, behind-before. The student massages the spot where the skull is attached to the neck and, at the same time, the navel. It improves the next learning skills:                  critical and decisional capacities                  spelling accurateness                  Maths calculations.</p>

	<p><b>Space buttons</b> One hand rests on the upper lip while the other lays on the back-bone. It activates the brain for: relaxation and concentration eye-contact in communication with people It improves these learning skills: focusing during a test reading motivation and interest.</p>
	<p><b>The thinking cap</b> This activity helps the student to focus attention on hearing. It also lessens tension in skull bones. The student gently pulls ears backwards and unrolls them with fingers. They start from the top of the ear, massage them delicately and end on the lobe. It activates brain for: hearing one's voice short-term memory inner dialogue and thinking .</p>
	<p><b>Hook-ups</b> The exercise can be done while standing, sitting or lying down. Students cross the left ankle on the right one. Then they intertwine fingers and bring them near the chest. They close their eyes, breathe deeply for a few minutes and relax. Then students free hands and legs and finger tips touch gently while they keep on breathing deeply. Hook-ups help: mind and body relaxation</p>
	<p><b>The energetic yawn</b> Don't get angry at your students if they yawn during English classrooms! Not now that you know that scientific research has proved yawning to be a perfect exercise which brings oxygen to the brain and so enhances learning performances!</p>

Brain gym developed in the year 1980 for children finding difficulties learning. Brain gym shows a real good result and more and more applied by various age factions with various learning challenges in more than 80 states. Some movement brain gym hardly easy to be done for child of age early so that development delay or inappropriate earned easily is handled. According To Carla H , a Neurophysiologist, Educator, and Brain Gym Teacher/ Consultant (Elis Demut, 2009:1) there are some important thing about movement and at the age of how much/many part of brain is growing, that is:

**Conception until age 15 months ? Brain reptile/ brain stem**

Basic need lives on: food, feels safe and balmy, protected. Expansion of sensori starts with system vestibular, then hearing, tactile. Kiss, tastes, sees, activates variously. Expansion of motorik from various movement of reflex to movement of core body ( core muscle), nape, hand and foot/feet accompanys to ability of body rotary, sits, crawls and street exploration motorik.

**Age 15 months to 4,5 years ? System limbic/ centered brain**

Understanding of others; emotion; language. exploration of Emotion; exploration communications ; imagine ; more and more harsh motorik paintbrush ; expansion of memory and the relation of social

**Age 4,5 years until 7 year ? Brain Gestalt/ starboard brain**

Process public impression; cognate recognition and mind; picture / movement / rhythm / emotion / instuisi. Haves a loose tongue and mind integrative

**Age 7-9 years upward. Linguistic / logical brain / left part brain**

Processing of thing which more detail and linear. Deepens language, precise time to learn reads and writes and linear mathematics. Certain technics expansion like music, art, athletics, dances, hand skill.

**Age 8 year. Brain frontage ( frontal lobe elaboration)**

Expansion of motorik smooth increased skill, Speaks at heart more masteringly is behaviour social. smooth Motorik for both eyes works along, like to read ( tracking and foveal focus) focus two dimensions.

**Age 9-12 Years ' The Increasing Of Elaborasi in Corpus Callosum and Myelinasi**

Learning process with all brain

**Age 12-16 Years ' Development Hormonal**

Gets wise to body, about self and others, societal life and way of living meaning through social awareness.

**Age 16-21 Years ' Refines, Sharpens Cognate Ability**

Learning process with all body and soul, interaction of social, plans future, plays with new idea and possibilities.

**Age 21 Years Upward ' Expansion and improvement of ability of brain frontage**

Global mind and thinks at high level, formally rational

Emotion more and more is expressed with interest precise: not egoist, loves, feels pity for others. Deeper understanding of ownself. Skilled of smooth motorik more and more accurate and smooth.

**Multiple Intelligences**

Intelligence of multiple is various intelligence types which can be developed at child, for example verbal-linguistik (ability elaborates mind in sentences, presentation, oration, article), logical-mathematical (ability applies is logika-matematic in breaking various problems), visual of spatial (ability thinks three dimention), bodily-kinesthetic (motion skill, dances, athletics), musical (sensitivity and ability of expression with sound, tone, melody, rhythm), intrapersonal (ability comprehends and haves a command over self), interpersonal (ability comprehends and adapts to others), naturalist (ability comprehends and exploits area).

Builds all intelligence is supposing builds a tent is height having some sticks as the prop. Increasingly same prop sticks height increasingly the tent steady stood. To be seriously smart meant has high score at all intelligence of multiple/ the compound. Although hardly seldom someone has high intelligence in all areas, usually man which really succeeding has combination 4 or 5 uppermost intelligence. Albert Einstein, famous of jenius in science area, simply also very smart in playing violin and matemátika. And So It Is With Leonardo Da Vinci having remarkable intelligence in the field of processing body, art, architecture, matemátika and físiika. (Andiyda, <http://info.balitacerdas.com/mod.php>).

Research indicates that just genetic factor insufficient for someone to develop its(the intelligence maximumly. Exactly the role of parent in giving practices and area that is is supporting far more important in determining development of intelligence of a child. So, to guarantee child future that is success, cannot reckon on school success as of eye. Old fellow must make the best of find and develops as many as possible intelligence owned by each child. -

or Gardner there is no child of amentia or bright, the is uppermost child in one or some intelligence types. Thereby, in assessing and stimulates child intelligence, parent and teacher righteously with jelly and careful designs a special method. In stimulating child intelligence, can be told, certain intelligence it is possible that is sharpened in order to become skillful.

Intelligence of unlimited somebody. Each and everyone has assorted of intelligence, but with different wight. Weak something in one sides, but very strong on the other side. What required in not only intellectual ability only, but ability and willingness in exploiting and assorted exploration of the potency, that is why poison there are man that is is not is school finish or even have never gone to school at all can become writer, entrepreneur, actor, inventor, first person and successful leader. It all because they a student and has intelligence that is is not limited by education formality. Intelligence cannot be measured by comparing to intelligence of others like system ranking. Intelligence measured from him self, how big potency owned by someone and how big output yielded. Increasingly solvent someone exploits potency, increasingly increases also the intelligence. (Heri S, 2006 dalam <http://zkarnain.multiply.com/links/item/12>).

## CONCLUSION

Brain Gym is based on three simple principles: (1) Learning is a pleasant and natural activity which goes on throughout our whole lives; (2) Learning blocks are caused by the student it's incapacity of coping with anxiety and stress derived by a task which is perceived as "too difficult" ; (3) We are all more or less blocked as far as learning is concerned since we have all learned not to move.

Brain Gym benefits include improvements in learning, vision, memory, expression, and movement abilities, in both young people and adults. In the classroom, teachers typically report improvements in attitude, attention, homework, behavior, and academic performance for the entire class.

Just genetic factor insufficient for someone to develop its(the intelligence maximumly. Exactly the role of parent in giving practices and area that is is supporting far more important in determining development of intelligence of a child. So, to guarantee child future that is success, cannot reckon on school success as of eye. Old fellow must make the best of find and develops as many as possible intelligence owned by each child.

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