

STATE OF NEW MEXICO
LEGISLATIVE EDUCATION STUDY COMMITTEE

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October 16, 2013

MEMORANDUM

TO: Legislative Education Study Committee

FR: Candy Meza and Mark Murphy

RE: STAFF REPORT: BRAIN DEVELOPMENT

INTRODUCTION

The 2013 interim workplan for the Legislative Education Study Committee (LESC) includes a report on the topic of brain development, more specifically, a presentation focused on how we learn and what may need to be considered in developing state policy.

For the committee's review, this staff report includes background information relating to the oral presentations for this topic, including the:

- International Brain Education Association (IBREA); and
- University of New Mexico (UNM) Family Development Program: *Mind in the Making: New Mexico*.

The staff report also includes a "Background" section that briefly describes:

- research on the effects of brain education; and
- brain education physical exercises.

Presenters

For this agenda topic, testimony will be provided by the following individuals:

- David Beal, Program Director, IBREA;
- Lois Vermilya, Executive Director for the Family Development Program, UNM; and
- David Atencio, Program Coordinator for Early and Multicultural Education, UNM.

INTERNATIONAL BRAIN EDUCATION ASSOCIATION (IBREA)

The International Brain Education Association (IBREA) is a nongovernmental organization that is designed to increase awareness of the brain's potential.

Brain Education (BE), as defined by IBREA, is an educational program for developing innate human capacity to reach health, well-being, and optimal achievement, by managing the brain effectively.

According to the IBREA website:

- physical BE exercises that use intricate coordination between the body and the brain to promote health and wellness for optimal brain function include:
 - Dahn Yoga – deep breathing and vibration exercises to activate the natural healing rhythms of the brain and body;
 - Iyengar Yoga – in-depth detail, precision, and alignment of *asanas* (posture) and *pranayama* (breath control) for strength, mobility, and stability development; and
 - various other exercises, such as dancing exercises, bones and muscles strengthening exercises, and brain buddies exercises.
- the practice of BE commonly results in:
 - improved physical health;
 - deeper concentration;
 - greater creative power;
 - increased empathy; and
 - cooperative strength; and
- BE consists of five essential steps in brain education to increase brain potential and overall well being, including:
 - **Step 1: Sensitizing**
 - awaken the brain-body senses;
 - stimulate blood circulation to improve the body's overall physiological functioning; and
 - enhance awareness of our brain and its function.

➤ **Step 2: Versatility**

- focus on flexibility to free us from our fixed habits or patterns; and
- open the brain to new information, making it more adaptable to new experienced and situations.

➤ **Step 3: Refreshing**

- train to release negative emotional memories and habits; and
- clear away emotional residue of earlier (perhaps traumatic) experiences and releases the associated energy toward new perspectives and attitudes.

➤ **Step 4: Integrating**

- integrate the different functional areas of the brain to release latent capabilities; and
- improve communication and cooperative interaction between the brain's right and left hemispheres.

➤ **Step 5: Mastering**

- help achieve greater mastery (executive control) over the brain;
- develop brain muscles for making free decisions and carrying them out – strengthening the power of choice and volition; and
- create total authorship of one's life.

Research on the Effects of BE

According to IBREA founder Ilchi Lee, Brain Wave Vibration, a core method of BE, is a brain fitness and holistic healing method that helps bring the body and mind into balance by using basic vibration exercises to stimulate the brain stem and calm higher frequency brain wave activity.

IBREA cites two prominent studies on Brain Wave Vibration and its role in BE:

1. The first study, by the University of London and the Korea Institute of Brain Science:
 - investigated whether brain wave vibration helps alleviate depression and insomnia;¹
 - assessed the comparative effects of Brain Wave Vibration, Iyengar Yoga, and Mindfulness training and its effects on participants' mood, well-being, and immune system function; and
 - concluded that participants who practiced Brain Wave Vibration, as part of a five-week program, experienced mental, physical, and emotional benefits, such as improvements in sleep and an increase in energy and vitality; and

¹ Source: Neuroscience Letters 2010 Jul 26;479(2):138-42. Epub 2010 May 28.

2. The second study:

- focused on the effectiveness of Brain Wave Vibration;²
- involved 67 individuals who regularly engaged in Brain Wave Vibration for an average of 43 months and compared their results to another group of 57 healthy individuals;
- found that individuals who engaged in regular Brain Wave Vibration practice were less stressed and displayed increased positive emotion; and
- concluded that stress factors such as depression, anger, and the manifestation of psychological symptoms in the body were also significantly less in those who regularly practiced Brain Wave Vibration than those who did not.

Finally, according to the IBREA website, within the US, more than 30,000 students in about 350 US schools are being taught BE, and an estimated 10,000 teachers have been trained to teach BE.

**UNIVERSITY OF NEW MEXICO (UNM) FAMILY DEVELOPMENT PROGRAM:
*MIND IN THE MAKING: NEW MEXICO***

The UNM Family Development Program in the College of Education currently houses the Mind in the Making: New Mexico (MMNM) professional development program. According to the program website, MMNM:

- involves a 12-module training program that integrates current research from leading scientists in brain development, neuroscience, psychology, and child development;
- can be taken for a 3 credit hour course through the UNM Extended University; and
- is recognized by the New Mexico Office of Child Development as the equivalent to the 45-Hour Entry Level Course that must be taken by all child-care employees in licensed facilities within their first year of employment.

In addition to the 12 module MMNM training, the UNM Family Development Program has also tailored training around an approach that relates to “seven essential life skills every child needs,” including:

- **Focus and Self Control**
 - children need this skill in order to achieve their goals especially in a world that is filled with distractions and information overload;
- **Perspective Taking**
 - children who can figure out what others feel and think are less likely to get involved in conflicts;

² Source: Evidence-Based Complementary and Alternative Medicine 2012; 2012:234713. Epub 2011 Dec 15.

- **Communicating**
 - children need to be able to determine what they want to communicate and how;
- **Making Connections**
 - children who can make unusual connections are more creative and can go beyond knowing information to using information well;
- **Critical Thinking**
 - children need to be able to search for reliable knowledge to guide their beliefs, decisions, and actions;
- **Taking on Challenges**
 - children who can take on challenges instead of avoiding or simply coping with them will do better in school and in life; and
- **Self-Directed Engaged Learning**
 - lifelong learners can change as the world changes in order to reach their full potential.

Brain Education Proposal

Executive Summary

Brain Education (BE) programs have been delivered to more than 300 schools in the US, including the Zuni Middle School of the Zuni Pueblo in New Mexico, benefiting more than 10,000 teachers and 30,000 students. BE is currently supporting 144 schools in El Salvador as a nationally endorsed program.

Brain Education (BE) is an innovative educational program for developing the human capacity for health, well-being, and self-realization through enhanced management of the brain.

Distinctions of Brain Education include:

- Integrative approach to enhance physical, emotional, and mental well-being
- Developing a foundation for students to use their brain capabilities effectively
- Experiential training for behavioral as well as cognitive changes

The BE Basic Program consists a series of 15 weekly lessons lasting 45-60 minutes each, along with daily routines that involve physical, emotional, and cognitive exercises designed to improve focus, creativity, memory, confidence, stress management, and physical health. The BE program can be delivered either by schoolteachers qualified by participating in a 3-day teacher training or by certified BE instructors.

In addition to teacher training, Brain Education offers supplemental workshops for leadership development for students (14 hours, 2 full days) and effective parental modeling for parents (1.5 hours for each workshop).

Most commonly recognized program outcomes include significant positive improvement in absenteeism, drug abuse, motivation, self-esteem, peer relationships, anxiety, self-regulation, stress management, and violence in the school and the community.

With information provided herein, we propose to run a basic level BE program at three (3) schools as a pilot project in New Mexico in 2014.

David Beal, Program Director
dbeal@powerbrainedu.com
<http://ibreaus.org/>
516-364-3413, 516-578-4632 (cell)

Enclosure:

1. Program Proposal
2. General Information on Brain Education

Brain Education (BE) Program Proposal

Introduction

Motivated students, passionate teachers, high rates of attendance and performance, safe and supportive classroom environment . . . these are a dream for all educators. For the past 8 years, Brain Education has been helping teachers, students, and parents accomplish this goal in the US and abroad.

As a principal who has successfully turned a struggling school from a “D” to an “A”, I have found Brain Education to be a truly transformational system for my staff and students. – **Jorge Perdomo**, Principal, PS 1X

BE programs have been delivered to more than 300 schools in the US including the Zuni Middle School of the Zuni Pueblo in New Mexico, benefiting more than 10,000 teachers and 30,000 students. Brain Education is currently supporting 144 schools in El Salvador as a nationally endorsed program.

Program Overview

Brain Education is an innovative educational program for developing the human capacity for health, well-being, and self-realization through enhanced management of the brain. It is a progressive convergence of traditional Eastern practices for energy development and mindfulness and new findings from neuroscience and education.

Distinctions of Brain Education include:

- Integrative approach to enhance physical, emotional, and mental well-being
- Developing a foundation for students to use their brain capabilities effectively
- Experiential training for behavioral as well as cognitive changes

The BE program consists of physical, emotional, and cognitive exercises designed to improve focus, creativity, memory, confidence, stress management, and physical health. Training outcomes include significant positive changes in absenteeism, drug abuse, motivation, self-esteem, peer relationships, anxiety, self-regulation, stress management, and levels of violence in the school and community.

Proposed Program Outlines

The *Brain Education for Enhanced Learning* (BEEL), the basic BE program for schools, consists of a series of 15 weekly lessons lasting 45-60 minutes each along with daily routines.

15 weekly lessons of 45-60 minutes, led by trained teachers and/or certified BE Instructors, which utilize physical, emotional, and cognitive exercises designed to improve focus, creativity, memory, confidence, stress management, and physical health.

Daily routines to be used to create an engaging classroom atmosphere:

- Morning meeting/beginning of a class: to start the day with an energized and enthusiastic attitude
- End of a lesson: to help students “save” the lesson, thereby integrating new content with prior knowledge to aid in comprehension and memory
- Before a test: to help students combat test anxiety, engage their memory, and focus with a confident mindset
- Energy boost: as needed to help students and teacher manage their mental and physical energy levels

Staff Training Needed for Implementation

Brain Education Teaching Workshop (18 hours: 3 school days) trains educators to facilitate 15 Weekly Lessons and apply the BE daily routines effectively.

- The first two days are given in succession.
- The third day of the program is to be delivered six weeks later to refresh the teacher’s knowledge of the program and address questions regarding program implementation.

After the program, trained teachers or Certified BE Instructors teach a 45-60 minute weekly BE lesson to each class.

In addition to teacher training, Brain Education offers supplemental workshops for

- **Leadership development for students** (14 hours, 2 full days)
- **Effective parental modeling** for parents (1.5 hours for each workshop): Sessions can be organized thematically around issues such as stress management, physical health, effective communication with children, nutrition, memory enhancement, and successful parenting techniques.

Success Stories: Brain Education in El Salvador

In cooperation with the UN, Brain Education is being delivered to developing countries in South America and Africa including El Salvador and Liberia.

Phase I: In 2011, IBREA carried out a 3-month pilot project in a school of Distrito Italia, Tonacatepeque in El Salvador with 24 educators and 39 children age 14-16. Research results included significant positive changes in absenteeism, drug abuse, motivation, self-esteem, peer relationships, anxiety, symptoms of trauma, self-regulation, stress management, and levels of violence.

Phase II: The program was expanded to 3 more schools in September 2012 in addition to the first pilot school. Ninety educators were trained and over 150 children from 3rd to 9th grade received Brain Education. Motivated by the outcome in the 4 schools, the El Salvador government decided to expand the program nationwide.

Phase III: The Ministry of Education of El Salvador has decided to support the expansion of Brain Education to 180 schools in the 2nd half of 2013 after witnessing the successful results of the pilot projects.

With noticeable success in helping educational challenges in El Salvador, IBREA aims to create a model that is replicable internationally.

Conclusion and Costs for Implementation

With the information provided above, we propose to run a BEEL program at three (3) schools as a pilot project in the State of New Mexico in 2014. The total costs, calculated by the fee schedule below, can vary according to the size of the participating schools.

Teacher Workshop: \$500 per teacher

- 18 hours (3 school days) of training to learn to provide 15 Sessions
- Training includes Student Workbook 1, Teacher's Manual, and Music CD

Weekly Class: \$50/class *when provided by a certified BE Instructor*

Supplemental Student Workshop: \$200 per student

- 14 hours (2 full days) training to develop character, focus, and leadership skills

Supplemental Parent Workshop: \$400 per workshop

- For understanding the BE approach and effective parental modeling

Note: Costs for applicable research are not considered in this proposal.

Brain Education:

A system of principles and practices to

Power Up Your Brain!

Dave Beal

Program Director, Power Brain Education

Education: Our Hope & Challenge

Education is the key to a better future for an individual and a nation.

The dream of all educators:

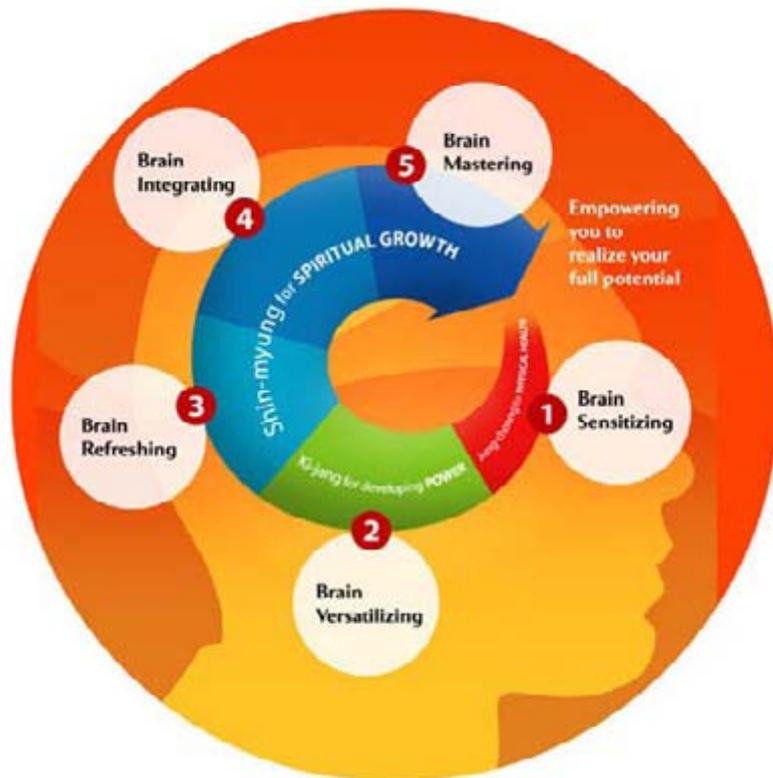
Motivated students, passionate teachers, high rates of attendance and performance, safe and supportive classroom environment . . .



Brain Education has been helping teachers, students, and parents accomplish this goal in the US and abroad.

Brain Education

An innovative educational program for developing the human capacity for health, well-being, and self-realization through enhanced management of the brain.



Brain Education for Enhanced Learning

Physical, emotional, and cognitive exercises designed to improve focus, creativity, memory, confidence, stress management, and physical health.

Positive changes in **absenteeism, drug abuse, motivation, self-esteem, anxiety, self-regulation, stress management, and levels of violence.**

Distinctions of Brain Education

- Integrative approach to enhance physical, emotional, and mental well-being
- Developing a foundation for students to use their brain capabilities effectively
- Experiential training for behavioral as well as cognitive changes



Program Delivery in the US and Abroad

- Delivered to more than 300 schools in the US including the **Zuni Middle School of the Zuni Pueblo in NM**
- Benefiting more than 10,000 teachers and 30,000 students
- Currently supporting 144 schools in El Salvador as a nationally endorsed program



Brain Education in El Salvador

Phase I: Started a 3-month pilot project in one school of Distrito Italia with 24 educators and 39 children age 14-16.

Phase II: Expanded to 3 more schools in September 2012.

Phase III: The Ministry of Education of El Salvador has decided to expand the program to 180 schools in the 2nd half of 2013 after witnessing the successful results.



Public Recognition for Brain Education

26 US states or cities have recognized Brain Education by issuing **Proclamations of Brain Education Day or Brain Education Week**

NY, MA, DC, CA, AZ, NM, CO, GA, NV, TX, IL, HI, OR ...



Five Steps of Brain Education

Foundation of the Brain Education Program

	STEP 1 Sensitizing	STEP 2 Versatilizing	STEP 3 Refreshing	STEP 4 Integrating	STEP 5 Mastering
Brain oriented purpose	Strengthening the brain-body connection	Making the brain more flexible and adaptable	Freeing one's brain from negative memories and habits	Integrating brain functions and unleashing its potential	Enhanced executive control and faculty of imagination
Commonly reported benefits	<ul style="list-style-type: none">• Physical health• Enhanced focus and awareness	<ul style="list-style-type: none">• Enhanced adaptability and creativity• More resilient mindset	<ul style="list-style-type: none">• Positive outlook• Self-esteem and confidence	<ul style="list-style-type: none">• Balanced, well-adjusted behavior• Enhanced multiple intelligence	<ul style="list-style-type: none">• Realizing the power of choice• Exercising the authorship of one's life.

Focus & Attention

Through Brain **Sensitizing** & “**Versatilizing**” exercises, students learn to improve their attention span dramatically through relaxed concentration.



Healthy, alpha brain waves contribute to more efficient time spent on a task and improved memory.

Self-Regulation & Balanced Emotions

Through Brain **Refreshing** activities, students release negative emotions and change habitual behaviors . . .



. . . while choosing a positive mindset based on harmonious collaboration.

Self-Esteem & Confidence

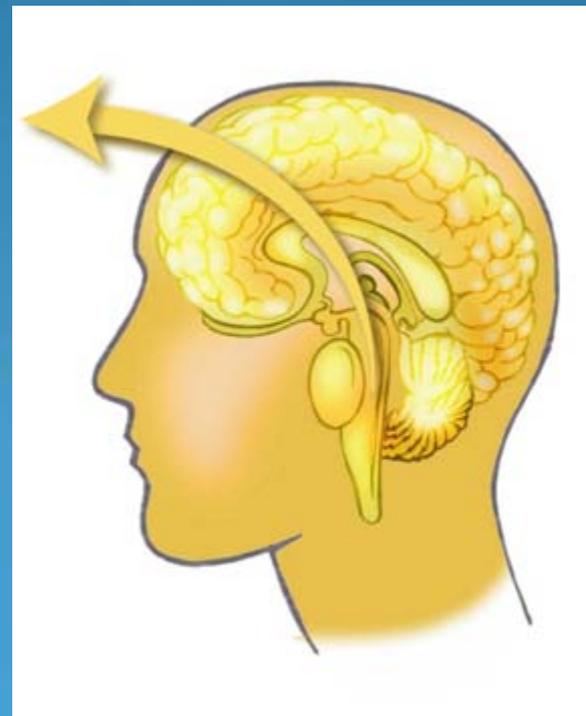
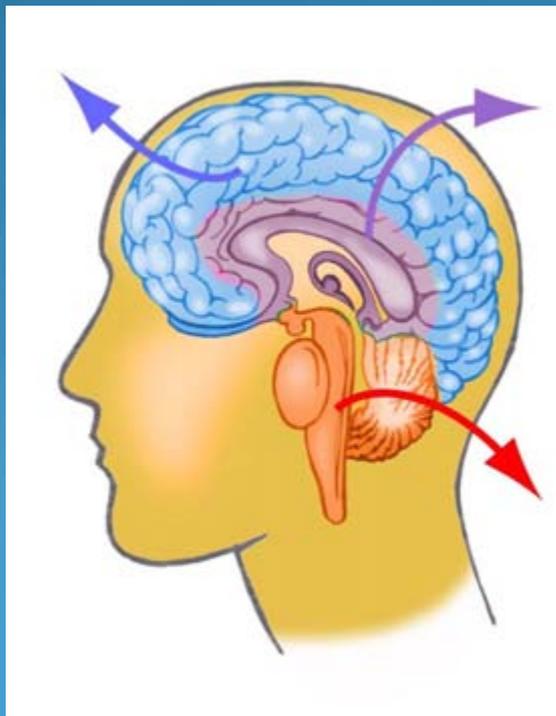
Through Brain **Refreshing & Integrating** activities, students release limiting preconceptions about themselves and practice taking confident actions toward fulfilling their personal dream.



As they begin to actualize their potential, natural leadership ability is cultivated.

Goal of Brain Education: Power Brain

- A Productive, Creative, Peaceful Brain
- All functions of the brain working together to realize its maximum potential
- A healthy body, enriched emotions, and blooming creativity



Brain Education for Enhanced Learning

The basic BE program for schools

Consists of a series of 15 weekly lessons lasting 45-60 minutes each along with daily routines.

15 weekly lessons of 45-60 minutes with physical, emotional, and cognitive exercises designed to improve focus, creativity, memory, confidence, stress management, and physical health.

Daily routines to create an engaging classroom atmosphere.

Training for Implementation

BE Teaching Workshop (18 hours: 3 school days) trains educators to facilitate 15 Weekly Lessons and apply the BE daily routines effectively.

- The first two days are given in succession.
- The third day of the program is to presented six weeks later to refresh the teacher's knowledge of the program and address questions regarding program implementation.

After the program, trained teachers or Certified BE Instructors teach a 45-60 minute weekly BE lesson to each class.

Testimonials from Educators about Brain Education for Enhanced Learning



“One of the purposes of the Quality Review is to gather and assess data to support student outcomes. In so doing, we found there was a disconnect between our students’ mental and physical wellbeing. We felt the need to connect the physical, emotional, and cognitive aspects of intelligence to improve student achievement.

Brain Education for Enhanced Learning (BE) has helped improve the level of student engagement, which has led to a more focused learning environment. Our students have raised their achievement as measured by traditional and nontraditional domains. Since we introduced BE, they are more confident, and they interact in a much more positive way with other students and adults. In my classroom observations, students are able to sustain their concentration for a noticeably longer period of time in all the core subjects.”

Tashon McKeithan
Principal, PS 65

Thank You!



Brain Education

for a better world



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Brain Education
Information Kit

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2013-2014 HSE Yearbook
 Introduction
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- The yearbook is a collection of photos and videos from the HSE 2013-2014 year.
- It is a record of the HSE 2013-2014 year and a reminder of the things we have done.
- It is a record of the HSE 2013-2014 year and a reminder of the things we have done.



The yearbook is a collection of photos and videos from the HSE 2013-2014 year.



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The yearbook is a collection of photos and videos from the HSE 2013-2014 year.

White t-shirts, Boe... HSE 2013-2014 year.

2013年世界脑科学大会

2013年世界脑科学大会，旨在促进全球脑科学研究，为构建一个更美好的世界

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2013年世界脑科学大会旨在促进全球脑科学研究，为构建一个更美好的世界。大会将探讨脑科学的最新进展，以及其在医学、教育、法律和社会政策中的应用。

大会的主题是“脑科学：从基础研究到临床应用”。大会将包括一系列研讨会、讲座和展览，旨在为脑科学领域的研究人员、临床医生和政策制定者提供一个交流和合作的平台。

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2013年世界脑科学大会将探讨脑科学的最新进展，以及其在医学、教育、法律和社会政策中的应用。大会将包括一系列研讨会、讲座和展览，旨在为脑科学领域的研究人员、临床医生和政策制定者提供一个交流和合作的平台。大会还将探讨脑科学在应对全球挑战中的作用，如老龄化、神经退行性疾病和心理健康问题。



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2013年世界脑科学大会，旨在促进全球脑科学研究，为构建一个更美好的世界。大会将探讨脑科学的最新进展，以及其在医学、教育、法律和社会政策中的应用。大会将包括一系列研讨会、讲座和展览，旨在为脑科学领域的研究人员、临床医生和政策制定者提供一个交流和合作的平台。



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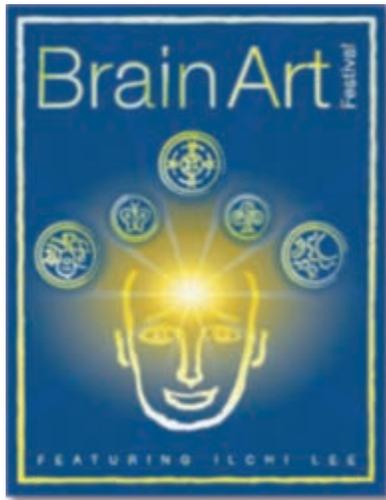
2013年世界脑科学大会旨在促进全球脑科学研究，为构建一个更美好的世界。大会将探讨脑科学的最新进展，以及其在医学、教育、法律和社会政策中的应用。大会将包括一系列研讨会、讲座和展览，旨在为脑科学领域的研究人员、临床医生和政策制定者提供一个交流和合作的平台。



Brain Education for a better world

Brain Education, Innovation, and Quality

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The Brain Education, Innovation, and Quality (BEI) project is a global initiative that aims to improve the quality of education and the health of the brain. It is a collaborative effort between researchers, educators, and policymakers from various countries.

The project focuses on the development of brain education programs that are based on the latest research in neuroscience and education. These programs aim to enhance the cognitive and emotional skills of students, which can lead to improved academic performance and better mental health.

The project also aims to raise awareness of the importance of brain health and education among the general public. This is done through various activities such as public lectures, workshops, and campaigns. The goal is to create a society that values brain health and education as essential components of a good life.

The project is supported by a number of organizations, including the World Health Organization, the World Bank, and the United Nations. It is also supported by a network of researchers and educators who are working together to advance the field of brain education.

The project has already achieved a number of successes, including the development of several brain education programs that are being implemented in schools and universities around the world. It has also led to a number of publications and conferences that have helped to advance the field of brain education.

The project is still in progress and there is much more work to be done. However, the progress that has been made so far is encouraging and suggests that brain education has the potential to make a significant difference in the lives of people around the world.

The project is a testament to the power of collaboration and the importance of investing in the health and education of our children. It is a project that we hope will continue to make a positive impact on the world for many years to come.



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UNIVERSITY OF NEW MEXICO
FAMILY DEVELOPMENT PROGRAM
A CENTER FOR EXCELLENCE IN EARLY LEARNING

LOIS VERMILYA, DIRECTOR

MIND IN THE MAKING

Early Brain Development – Science of Learning

Prepared for LESC Meeting: October 17, 2013

Presentation Overview



- Research to Practice
- Brain Development: How Children Learn
- Executive Functions – Teaching Life Skills for Learning
- Statewide Parent and Teacher Training

Goal: Students as Self Directed and Engaged Learners

RESEARCH: Mind in the Making



Bridging Research and Practice

- National Initiative led by Ellen Galinsky, President Families and Work Institute, NY, NY
- Prominent National Researcher and Leader
- Helped establish field of work and family life at Bank Street College of Education – Faculty 25 years
- Bridge Business Needs with Science of Learning

Learning and Early Brain Development

- Interview and film more than 90 prominent researchers on how children learn
 - Neuroscience
 - Developmental Psychology
 - Pediatrics
 - Education
- Synthesize more than 1,000 research studies
- Parents and Educators have access to research to inform state quality initiatives and change practice

New Mexico Leadership



- 2004: New Mexico first state to pilot Mind in the Making Initiative for state systems development
- Family Development Program is national leader and collaborator with Ellen Galinsky for licensing facilitators and consulting in 16 other states
- NM legislative and private foundation investment in Mind in the Making for state quality initiatives

Executive Function Skills

Business Needs Skills for Effective Workplace

Children Need Life Skills for Effective Learning

It is clear that there is information children need to learn – facts, figures, concepts, insights, and understanding. But we have neglected something that is equally essential – children need life skills.

Ellen Galinsky

Importance of Life Skills for Learning



- Skill 1: Focus and Self Control
- Skill 2: Perspective Taking
- Skill 3: Communicating
- Skill 4: Making Connections
- Skill 5: Critical Thinking
- Skill 6: Taking on Challenges
- Skill 7: Self-Directed, Engaged Learning

3 Essential Points



- ❑ Skills are not only important for children – as adults, we have to practice them to promote them.
- ❑ They can be promoted in everyday ways through everyday fun things we do with children – don't need expensive toys and equipment.
- ❑ It is never too late to help children learn these life skills, no matter what their ages.

Amazing Babies

Language Sense - Numbers Sense - People Sense

One theme from the research on children and learning is that babies' brains appear to be wired to help them understand and know about the world in specific ways.

Infants have a capacity to grab onto information about people, language, objects, spaces, and numbers, long before they have been taught it.

Ellen Galinsky

A Language Sense



At 8 months of age...

babies detect statistical patterns in which sounds go together in their native language to determine the beginnings and ending of words in a 'sea of sounds'.

Jenny Safron, University of Wisconsin

A Number Sense



Infants' brains appear to be wired for math.

Stanislas Dehaene, College of France

Infants six months old and even younger can detect the difference between large and small numbers of things.

Elizabeth Spelke, Harvard University

A People Sense



Infants and young children...

focus on people's intentions rather than seeing what people do as random movements in space.

Kiley Hamlin, University of British Columbia

Karen Wynn, Yale University

Executive Functions

- All seven skills involve executive functions or the prefrontal cortex of the brain.
- Executive functions manage attention, emotion, behaviors in order to reach goals.
- Executive functions are not just intellectual skills. They require weaving together social, emotional, and intellectual capacities.
- Executive functions begin to emerge during preschool years and don't mature until young adulthood.

Key Aspects of Executive Functions

- Goal-Oriented
- Working Memory - Paying Attention
Thinking Flexibly
Inhibitory Control
- Ability to keep a number of different things in mind
- Inhibit tendency to go on automatic pilot
- Integrate feelings and thinking
- Involve ability to Reflect – Analyze – Plan – Evaluate

Importance of Executive Functions



Executive functions predict children's achievements as well as IQ tests do...

...or even better, because they go beyond what we know and tap our abilities to use what we know.

Adele Diamond, University of British Columbia

Skill 1: Focus and Self Control



- Involves paying attention, remembering the rules, thinking flexibly, and exercising self control
- Helps children achieve their goals and manage distractions

Research Shows

A review of hundreds of studies of what skills or knowledge acquired early in life matter later for student achievement concluded...

Only 3 skills that children had when they entered school – strongly correlated to educational success...

- Known Finding: Early Reading and Early Math skills
- Startling Finding: Attention skills

Jeanne Brooks – Gunn, Columbia University

Research Shows



Classic Marshmallow Study: A young child's ability to demonstrate FOCUS AND SELF CONTROL correlates with...

- ❑ Better ratings of self control by teachers
- ❑ Better ability to pursue academic and other goals
- ❑ Higher SAT scores
- ❑ Higher educational attainment
- ❑ Better self-esteem & interpersonal relationships

Skill 2: Perspective Taking

- Enables children to understand that other people have different likes, dislikes, thoughts and feelings
- Involves figuring out what others think and feel
- Forms basis of children's understanding of the intentions of their parents and teachers

Research Shows

Children who can take others' perspectives are also much less likely to get involved in conflicts.

Larry Aber, New York University

PERSPECTIVE TAKING... *also shapes children's memories for events, and it helps them to predict what will happen in the future.*

Ross Thompson, University of California, Davis

Skill 3: Communicating



- Speaking, reading, writing and language development requires rich conversations with children where they constantly hear lots of words

Communicating also requires that we help children...

- Determine what they want to communicate
- Understand how their communications will be understood by others

Research Shows

Families in which children are read to regularly and who are engaged in rich conversations - are families whose children are more likely to arrive at school ready to learn.

The more words children know, the more questions they can ask, the more they can make connections between different topics.

Catherine Snow, Harvard University

Research Shows

- Bilingual children do not get confused by hearing two languages.
- Bilingual children do not experience delayed language development, but the process differs in that vocabulary size is divided across two languages.

Catherine Snow, Harvard University

Janet Werker, University of British Columbia

Linda Espinosa, University of Missouri

Skill 4: Making Connections

Making connections is the heart of learning.

*Making unusual connections
is at the core of creativity.*

- Figuring out what's the same - what's different
- Sorting things into categories
- Discovering patterns
- Exploring confounding information
- Making unusual connections

Research Shows



The ability to think and act creatively will be the key distinguishing quality that will allow people to succeed...

Mitch Resnick, MIT

If you can sort the world out into the right categories -- then you have a big advance on actually understanding the world.

Alison Gopnik, University of California, Berkeley

Skill 5: Critical Thinking

- Curiosity - experimentation
- Determining valid and reliable knowledge
- Creating and testing theories
- Disentangling cause and effect
- Learning from experience
- Learning from others – discerning who knows what

Research Shows



Curiosity is an important part of mastery.

When we think about the relationship between the mastery drive and learning, we realize that the inborn drive to master is one of our strongest assets of learning.

Jack Shonkoff, Harvard University

Research Shows



Young children, like little scientists, have a hypothesis, make predictions and do mini-experiments.

The “scientist in the crib” is the child as the active learner, a hands-on learner, using experience to transform theories.

Andrew Meltzoff, University of Washington

Skill 6: Taking On Challenges

Children who are willing to take on challenges, instead of avoiding them or simply coping... do better in school and life.

- Resiliency – abilities to manage stress
- Importance of a growth mindset

Research Shows

*Children who avoid challenges have a **fixed mindset**: they see their intelligences as a fixed trait and are reluctant to undertake challenges that stretch them.*

*Children who are willing to take on challenges have a **growth mindset**. Children with a growth mindset do better in school.*

Carol Dweck, Stanford University

Skill 7: Self-Directed, Engaged Learning



- Social + emotional + intellectual learning
- Freedom to learn on own
- Understanding children's passion and drive as learners – what “lights” a child up

Research Shows

Learning takes place in relationships.

Jack Shonkoff, Harvard University

- Social + Emotional + Intellectual learning are inextricably linked.
- Supporting how children learn is as important as what children learn – children need essential life skills to be successful as lifelong learners.

PRACTICE: Parent + Teacher Training



Common Language

- Skills can be promoted by parents and teachers as an accessible common language for learning
- Executive function skills are foundational tools for lifelong learning and academic success
- Link: Harvard 3 minute video resource – changing outcomes for vulnerable children and families

http://developingchild.harvard.edu/resources/multimedia/videos/theory_of_change/

Common Core Meets the 7 Essential Skills

- Foundation for student success in Common Core
- APS Pilot with NM School Leadership Institute
 - 4 Community Schools
 - District-wide Associate Superintendent Elementary Academic Team
- Tools and Training - Parents, Teachers, Principals
 - CCSS Shifts in Practice
 - NM Teach
- National School Districts – Requests for Training

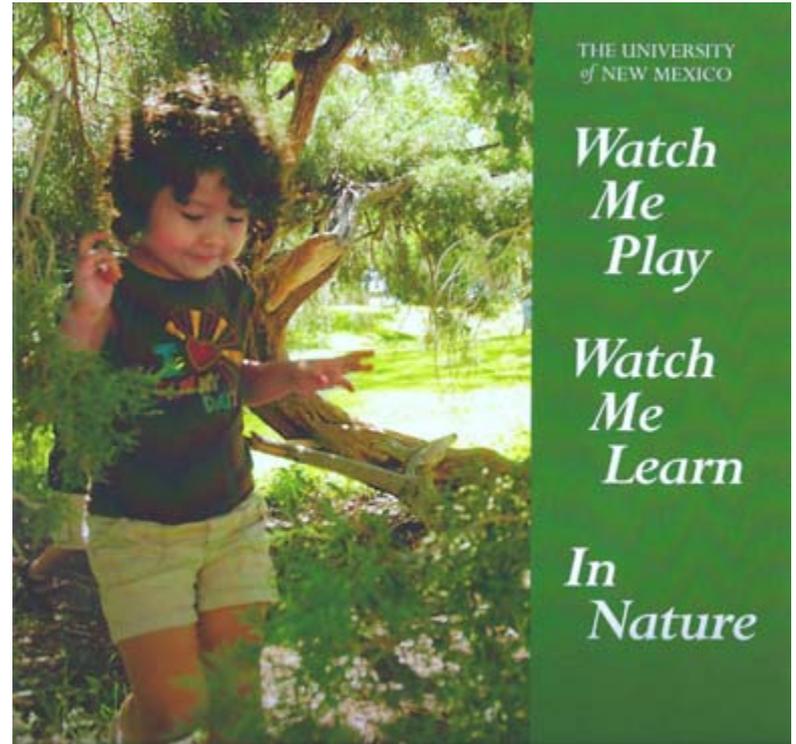
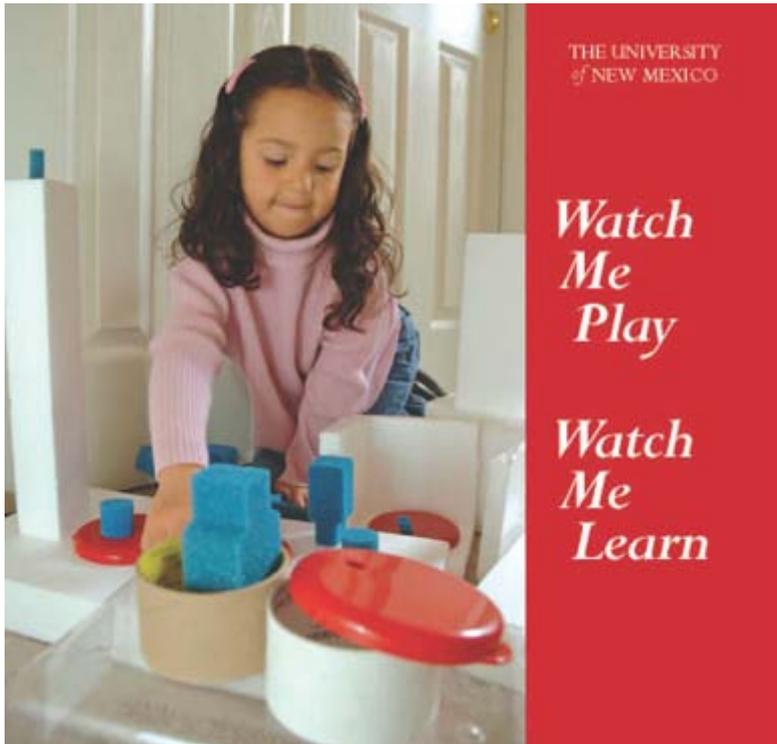
Leadership Development

- Principal – Teacher – Parent – Student Leadership
- Seven Essential Skills as Collaborative Leadership Framework
- WKKF: Neighborhood Leadership Academy
Early Childhood Leadership Development
- Repurpose tools from earlier grant investments for an Early Childhood Leadership Tool Kit
- Leverage for Early Childhood Investment Zones

Parent Engagement

Watch Me Play/Watch Me Learn

Watch Me Play/Watch Me Learn in Nature



Prescriptions for Learning

- National Pilot for new Mind in the Making initiative developed for the American Pediatric Association
- Convening an initial pediatrician planning group in cooperation with ECAP and members of the John Paul Taylor Task Force

NMPBS Public Square: May 2013

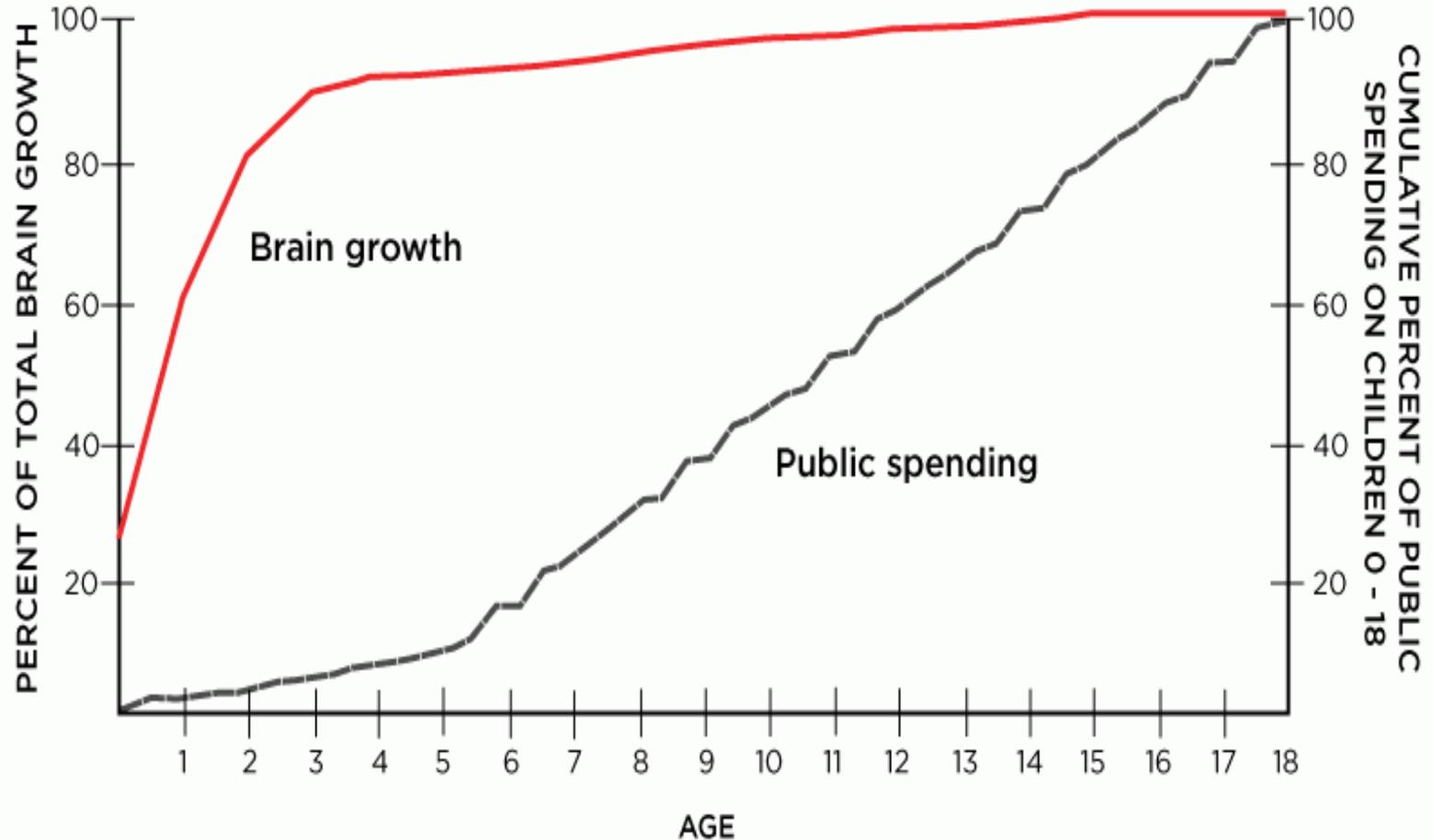
- Early Brain Development: Conversation with Ellen Galinsky and state/local early childhood leaders
- NMPBS Public Square Link

<http://portal.knme.org/program/new-mexico-pbs-public-square/>

CONCLUSION



Invest Early



Neal Haflon, UCLA Center for Infant and Early Childhood Health Policy

Educational Investment: Quality Matters

Cost Benefit Analysis

Major Longitudinal Studies Early Childhood

- High Scope Perry Preschool Study (age 27)
- Abecedarian Project (age 22)
- Chicago Child-Parent Centers (age 21)

Significant Findings

- Benefit-to-cost ratio = Anywhere from 7:1 to 17:1

Rolnick and Grunewald, Federal Reserve Bank
Nobel Laureate Economist, James Heckman

What Makes A Difference?

- Clear focus on children's learning - whole child approach
- Social, emotional, intellectual, physical development
- Quality relationship between teacher and child
- Children viewed as active, experiential learners
- Mixture of responsive and direct teaching
- Authentic and ongoing parent engagement
- Continuous professional development/adult learning

Galinsky, "The Economic Benefits of High Quality Early Childhood Programs: What Makes a Difference", CED (2006)

Contact Information



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