

Research

A Chronology of Annotated Research Study Summaries in the Field of Educational Kinesiology

BRAIN GYM[®]
International

The Educational Kinesiology Foundation, Ventura, CA, U.S.A.
(805) 658-7942 • (800) 356-2109
edukfd@earthlink.net • www.BrainGym.org

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Table of Contents

Design Descriptions	4
Academic Papers	5
• Educational Kinesiology, movement, and sensory integration: A review of recent, relevant neuroscientific literature, 1999	
• The ADHD controversy: Drugs, labels, and stifled potential, 1997	
• NLP and the brain: Some issue areas, findings, and hypotheses, 1996	
• Brain Gym® literature review and study design proposal, 1996	
• Movement or medication? The alleviation of ADD, 1994 and 1995	
• Achter, Xund uerber Kreur: Edu-Kinestetik in Theorie und Praxis, 1996	
Academic Publications	6-8
Group I: True Experimental Research Designs	6
• The effect of Educational Kinesiology upon simple and four-choice response times, 1988	
Group II: Quasi-Experimental Research Designs	6
• Brain exercise improves reading and memory, 1994	
• The effects of Educational Kinesiology on the static balance of learning-disabled students, 1988	
• The effects of Educational Kinesiology upon the static balance of learning-disabled boys and girls, 1988	
Group III: Pre-Experimental Research Designs	7
• Increasing behavioral skills and level of understanding in adults: A brief method integrating Dennison's Brain Gym® balance with Piaget's reflective processes, 2002	
• Whole-brain integration in a case of reverse reading and writing, 2001	
• The Brain Gym® Option for Hyperactivity, ADD, EH, Sp. Ed., LD and FAS, 1990	
• The effect of Educational Kinesiology on hearing, 1990	
• Educational Kinesiology: Empowering students and athletes through movement, 1990	
Experimental Research	9-14
Group I: True Experimental Research Designs	9
• The effects of Brain Gym® on reading and comprehension, 2002	
• The effect of PACE on self-reported anxiety and performance in first-year nursing students, 1995	
• The effect of Educational Kinesiology on response times of learning-disabled students, 1990	
• The effect of Educational Kinesiology upon simple and four-choice response times, 1988	
Group II: Quasi-Experimental Research Designs	10
• The effect of Brain Gym® on the cognitive performance of Alzheimer's patients, 2001	
• Brain Gym® and its effect on reading abilities, 2000	

Table of Contents (Cont.)

Group III: Pre-Experimental Research Designs	11
• Brain Gym® intergenerational mentoring program improves reading and decreases problem behaviors, 2002	
• Individual Brain Gym® work in a learning-assessment lab, 1998	
• The impact of Brain Gym® processes on sales of insurance, 1993	
• The effects of Edu-K in a research project with second-graders, 1992	
• Using Brain Gym® for matching pitch, 1992	
• The effects of Edu-K on computer-related eye and muscle strain, 1990	
• The effects of Brain Gym® with Special Ed students grades three through five, 1990	
• The effects of combined Brain Gym® and mountaineering experiences on teen and preteen scholastic achievement, 1989	
• The effects of Edu-K in a remedial summer school program, 1989	
• The effects of Edu-K on psychometric measures of achievements of Special Ed elementary students, 1988	
• The effects of Edu-K in the classroom on beginning reading skills, 1987	
• A longitudinal perspective on Edu-K outcomes with Special Ed students in Australia, 1987	
Descriptive Research	15-18
Group I: Qualitative Research Designs	15
• The results of the use of Brain Gym® movements in a network-marketing seminar, 2002	
• Switched-On Selling Research Report, 1992, updated in 2001	
• The results of a Brain Gym® course at an educational program for underprivileged children in Bangladesh, 2000	
• Brain Gym® in a program for teachers and health staff in North Sulawesi, Indonesia, 2000	
• Using Brain Gym® with hearing-impaired children in Flores, East Indonesia, 1999	
• A year of Learning Gymnastics (Brain Gym®) at Dorkas kindergarten, North Sulewesi, 1998	
• Brain Gym® for preschoolers in a Headstart program, 1996	
• The effects of Brain Gym® in a district-wide Canadian field study, 1991	
• The effects of Edu-K on academic and social skills of high school students in Israel, 1990	
Group II: Correlational Research Designs	17
• The influence of Brain Gym® movements on the work of muscles and on dynamics and posture reflexes, 1999	
• Correlates of Edu-K repatterning pre-checks with “at-risk” populations, 1990	
Author Index	19
Research Contact Information	20
Local Contact Information	21

Design Descriptions

The research studies summarized here were submitted to Brain Gym® International in experimental or descriptive design.

Experimental Research

The purpose of experimental research is to show that when an independent variable is manipulated (changed or introduced) within a group there will be a change in a characteristic (dependent variable) of the group.

True experimental research is characterized by comparison of randomly selected groups: a control group and an independent variable group.

Quasi-experimental research has comparison groups that are not randomly selected. The nonequivalent control group design that falls under the quasi-experimental category is often used in educational research and usually utilizes two separate classrooms or schools.

Pre-experimental research typically has no control group, only one or more populations that experience the independent variable.

Descriptive Research

Descriptive research (qualitative and correlational) is used to explore information about, investigate the relationship between, describe characteristics of, or predict characteristics of a population.

Qualitative research reports the changes in characteristics that are difficult to quantify, such as enjoyment of or enthusiasm for an activity.

Correlational research compares two or more characteristics from the same population, showing how these characteristics vary and how well one can be predicted from knowledge of the other.

Brain Gym® International welcomes your financial support to fund the editing, translating, and summarizing that make possible this and other publications that explore the effectiveness of the Educational Kinesiology (Edu-K) work. Currently our foundation offers more than 35 approved courses that explore, demonstrate, and validate the application of the Edu-K work in all walks of life and human endeavor.

Academic Papers

Educational Kinesiology, movement, and sensory integration: A review of recent, relevant, neuroscientific literature

Susan J. Diamond, Ph.D. ©1999

Published in Brain Gym® Journal, Volume XV, Nos. 1 and 2, 2001

A rare and recent academic effort to link peer-reviewed research findings and concepts from numerous disciplines, including neurophysiology, into an inclusive framework for a scientific understanding of Educational Kinesiology as a method to benefit educators. This study includes information on the nervous system; reflexes; hemispheric organization for vision, hearing, and laterality; emotion and asymmetry; and sensory modalities.

◆ 28 pages. References, bound with two other academic papers, available for \$25 U.S. (including postage). Contact: Susan Diamond, Ph.D.

The ADHD controversy: Drugs, labels, and stifled potential

Joan Spalding ©1997

Published in Brain Gym® Journal, Volume XI, No. 3, 1999

A history of ADHD and review of the literature; discussion of the use of the drug Ritalin with ADHD, the politics and results of labeling children, and educational alternatives, including Brain Gym.

NLP and the brain: Some issue areas, findings, and hypotheses

Susan J. Diamond, Ph.D. ©1996

Published in Brain Gym® Journal, Volume XV, Nos. 1 and 2, 2001

A discussion of process therapies including tentative links with neural and physiological factors that could explain why these therapies work. Review of research on state-dependent learning, stress and emotion, the role of lateralization and asymmetry in perception, brain organization and handedness, attention, memory, language, hearing, dissociation, etc.

◆ 46 pages. References, bound with two other academic papers, available for \$25 U.S. (including postage). Contact: Susan Diamond, Ph.D.

Brain Gym® literature review and study design proposal

Susan J. Diamond, Ph.D. ©1996

Published in Brain Gym® Journal, Volume XV, Nos. 1 and 2, 2001

This paper, a research-study design project and a literature review, relates the impact of movement on learning to some possible theoretical foundations and accepted theories of stress, exercise, etc. Section One brings in relevant concepts from neuropsychology on anxiety; asymmetry; exercise, arousal, and attention; state models; neurological soft signs (behavioral impairments), etc. Includes a useful review of information from relevant fields. Prepared in 1996 for doctoral work at the University of Victoria, BC, Canada.

Section Two offers a review of research on Educational Kinesiology, a review of related research on the relationship between movement and academic learning, development of a proposed research study to expand previous studies, and a proposed Brain Gym research program.

◆ 58 pages. References, bound with two other academic papers, available for \$25 U.S. (including postage). Contact: Susan Diamond, Ph.D.

Movement or medication? The alleviation of ADD

Anka Koelman, Ph.D. ©1994 and 1995

Published in Brain Gym® Journal, Volume XI, No. 3, 1997

A summary of two of Dr. Koelman's articles on ADD, reviewing the symptoms of ADD and discussing effective alternatives, including Educational Kinesiology, Neuro-Linguistic Programming, and Superlearning.

Achter, Xund uerber Kreur: Edu-Kinestetik in Theorie und Praxis

Published by VAK Publishers, Verlag fuer Angewandte Kinesiologie, Freiburg ©1996

Available in German language only.

Contributions by 19 authors, educators, and researchers. Includes teachers' experiences with Educational Kinesiology in the classroom, in addition to well-founded empirical studies on the effects of Brain Gym® on learning.

Academic Publications

Group I True Experimental Research Designs

The effect of Educational Kinesiology upon simple response times and choice response times

*Josie M. Siff, Ph.D., and G.C.K. Khalsa ©1991
Published in Perceptual and Motor Skills, 73,
1011-1015, 1991, as "The effect of Educational
Kinesiology upon simple response times and choice
response times." Previously presented at the American
Alliance for Health, Physical Education, Recreation
and Dance Southwest District Convention, March,
1989, Salt Lake City, Utah. Reported on in the Brain
Gym® Magazine, Volume II, No. 3, 1988*

This publication is the short research journal report of the second experimental study conducted using Educational Kinesiology techniques. The study was done with university students to see whether Brain Gym activities and Dennison Laterality Repatterning would influence the response times to a visual stimulus. The results indicated that both Edu-K groups were superior to the control group and that the repatterned group improved twice as much as the Brain Gym-only group.

Group II Quasi-Experimental Research Designs

Brain exercise improves reading and memory

*Jochen Donczik, Ph.D. ©1994.
The following summary is from an edited English-
language translation by Christine M. Grimm and Sigrid
Wong, republished in the Brain Gym® Journal, Volume
XV, Nos. 1 and 2, 2001, from "Können edukinestetische
Übungen (Brain-Gym®) Legasthenikern helfen?" in
Die Sprach-heilarbeit 39 (1994), S. 297-305, a German
publication.*

In a previous work on reading and language development (1994), the author presented his findings on how Dennison Laterality Repatterning (DLR) helped to lessen errors in the reading, memory, and comprehension of those considered to have language disabilities. The purpose of the DLR movement process, originated by

Paul E. Dennison, Ph.D., is to help the learner discover how to cross the visual/auditory/kinesthetic midline of the body for improved bilateral processing.

Between 1995 and 1996, based on that 1994 study, the researcher added additional controls to show how DLR influences rate of reading, as well as learning and memory processes. In this control study, the reading scores of those with language disabilities who did not have the benefit of DLR grew consistently lower with each trial, while those who experienced DLR in the 1994 pilot study improved from trial to trial. With the number-sequencing test, it was seen that reading rate increased after DLR while it stayed the same for those without DLR. Finally, it was also found that long-term memory retention improved after DLR, while no such improvement was evident without DLR.

The effects of Educational Kinesiology on the static balance of learning-disabled students

*G.C.K. Khalsa, Don Morris, and Josie M. Siff, Ph.D.
Published in Perceptual and Motor Skills, 67, 51-54,
1988*

This study was completed with 60 elementary students who were classified as learning-disabled. An equal number of boys and girls were divided into three groups: Dennison Laterality Repatterning, Edu-K movement, and a control. The results indicated that the repatterned Edu-K group showed a greater improvement in static balance than did the Edu-K movement group, who in turn performed better than the control group. The findings also suggest that Edu-K can be used effectively in a coeducational setting.

The effects of Educational Kinesiology upon the static balance of learning-disabled boys and girls

G.C.K. Khalsa and Josie M. Siff, Ph.D. ©1988

This publication is a hard copy of a presentation made to the American Alliance for Health, Physical Education, Recreation and Dance National Convention in Las Vegas, Nevada, in April of 1987. Based on the above-named research project.

◆ Available from Educational Resources Information Center, or on microfiche (ERIC Document Reproduction Series No. ED 289835).

Group III

Pre-Experimental Research Designs

Increasing behavioral skills and level of understanding in adults: A brief method integrating Dennison's Brain Gym® balance with Piaget's reflective processes

C. A. Wolfson © 2002

Published in the *Journal of Adult Development*, 9(3), 185-201, (ISSN: 1068-0667), issued quarterly by Kluwer Academic/Plenum Publishers, P. O. Box 322, 3300 AH Dordrecht, The Netherlands. The entire article can be access on-line through a pay-per-view program, visit: <<http://www.wkap.nl/prod/j/1068-0667>>

Each of four adults was given an individual single-session intervention. The sessions evaluated the behavioral skills involved in conceptually understanding how to attain personally selected goals. The method combined an analysis of the ability to understand "conservation," as identified by Jean Piaget in his "conservation tasks," with Paul and Gail Dennison's Brain Gym® balance procedure.

Dr. Wolfson's qualitative model of whole-brain understanding is based on the ability to coordinate three interrelated variables: figure-ground/locating; appearance-image/identifying; and word-actions/naming effective goal-related actions. Commons et al.'s scoring scheme identifying stages/steps of hierarchical complexity was used to analyze the verbal protocols (M. L. Commons et al., 1992; Commons, Danaher, & Meaney, 2000) and functioned as the quantified dependent variable. According to the measurements used, increases were found in all four participants' conceptual understanding of how to achieve their goals as well as in the complexity of their performance.

Whole-brain integration in a case of reverse reading and writing

O. Kuznetsova, M.D., Ph.D., and G. Kudryavtseva, M.D., of the State Institute for Postgraduate Medical Studies Department of Manual Therapy, Acupuncture, and Neurology in Novokuznetsk, Russia, ©2001

The following summary is from an edited English-language translation republished in the Brain Gym® Journal, Volume XVI, No. 1, 2002, from articles originally published in Russian and presented at the symposia of two medical congresses.

See: "Educational Kinesiology for Whole-Brain Integration in a Case of Reverse Reading and Writing." *Contemporary Achievements of Applied Kinesiology, VII Congress, Gorniy Altay, Russia. Aug. 2001:41-44* and "Brain Gym® for Activation of Inter-hemispheric Connections under the Applied Kinesiology Control." *Second Pacific International Traditional Medicine Congress, Vladivostok, Russia. Sept. 2001: 63-64*

This paper describes the effectiveness of Brain Gym activities in a case of reverse reading and writing in a left-handed child. Single-side and cross-lateral movements and Brain Gym massage points were selected using surrogate muscle testing (a method derived from applied kinesiology.) The techniques, results of surrogate testing to monitor effectiveness, and overall results are included.

The article shows the relevance of Brain Gym in questions of laterality and dominance. It consisted originally of three parts: a description of the case itself; a detailed description of the Brain Gym activities and point massage from the Brain Gym literature; and a brief historical retrospective on the problem and on the physiological basis of Brain Gym activities. The details of the activities were omitted from the English-language version.

The Brain Gym® Option for Hyperactivity, ADD, E.H., Sp.Ed. L.D. and FAS

Carla Hannaford, M.A. ©1990

Published in the *Australian Journal of Remedial Education, Volume 26, No. 1*

This essay includes the research described in "The effects of Brain Gym with Special Ed students grades three through five," and hypothesizes that Brain Gym movements can eliminate or greatly ameliorate the symptoms of hyperactivity, learning disabilities, Attention Deficit Disorder, emotional handicaps and even Fetal Alcohol Syndrome. A review of current brain literature supports the use of movement to enhance learning.

◆ 6 pages. Article was reformatted for distribution by Brenda Bowman Irvin of North Carolina and is available from Brain Gym® International.

The effect of Educational Kinesiology on hearing

*G.C.K. Khalsa and Josie M. Siff, Ph.D. ©1990
Presented at the American Alliance for Health,
Physical Education, Recreation and Dance Regional
Convention, December, 1990, Long Beach, California
and then Published in Brain Gym® Magazine, Volume
IV, No. 3, 1990*

This study was completed with 16 elementary school teachers. Each teacher was tested on the Pure-Tone audiometer before and after each movement experience. The movement experiences were 10 minutes of random movements about the room or a series of five Brain Gym activities. The results indicated that the hearing of the teachers was better after the Brain Gym activities than after the random movements.

Educational Kinesiology: Empowering students and athletes through movement

Josie M. Siff, Ph.D. ©1990

This publication is a hard copy of a presentation made to the American Alliance for Health, Physical Education, Recreation and Dance National Convention in New Orleans, Louisiana, in April of 1990.

An overview of Educational Kinesiology, explanation of some of the Brain Gym® activities, and review of the research to date.

◆ The full publication is available from Education Resources Information Center, or on microfiche at the library (ERIC Document Reproduction Series No. ED 320891).

Experimental Research

Group I True Experimental Research Designs

The effects of Brain Gym® on reading and comprehension, as detailed in the book *Das bewegte Klassenzimmer: Ein Projekt zeigt Wirkung: Ergebnisse und Anregungen für die Praxis (The Moving Classroom: Results of a Research Project with Suggestions for School Implementation)*

Dorothea Beigel, Waltraud Steinbauer, and Kurt Zinke
©2002, available in German only.
Published by VAK Verlags GmbH Kirchzarten bei
Freiburg: 2002

The following summary gives our English readers the basis and results of this study. In an eight-week study on the effects of Brain Gym on reading and comprehension, 18 eight-year-old schoolchildren with reading difficulties were divided into three randomly assigned groups of six students each: a play group (random movements), a psychomotoric group (specific, traditional movements for sensorimotor integration), and a Brain Gym movement group. The three groups received a like amount of attention. Each group did 15 minutes of movement daily. The Brain Gym movement group did the four PACE movements (Water, Brain Buttons, the Cross Crawl, and Hook-ups) along with Earth Buttons, Space Buttons, and Dennison Laterality Repatterning. (The rest of the 26 Brain Gym movements were used only on some days). Each week, students from the University of Gie Ben examined all groups in reading proficiency. Pre- and post-testing included a timed reading of text material, with the number of errors noted, as well as the filling out (by parents and teachers) of questionnaires.

A double-blind statistical analysis of the data indicated that the children who had done the Brain Gym activities read faster, made fewer mistakes, and had better comprehension of the text material than did the two other comparison groups.

♦ A synopsis of this study is described in *Das bewegte Klassenzimmer: Ein Projekt zeigt Wirkung: Ergebnisse und Anregungen für die Praxis (The Moving Classroom: Results of a Research Project with Suggestions for School Implementation)*, available only in German, by Dorothea Beigel, Waltraud Steinbauer, and Kurt Zinke, published by VAK Verlags GmbH Kirchzarten bei Freiburg: 2002.

The effect of PACE on self-reported anxiety and performance in first-year nursing students

Jan Irving, Ph.D., R.N. ©1995
Published in *Brain Gym® Journal, Volume X,*
No. 1, 1996

This multiple baseline design was completed with 27 first-year nursing students, using three separate groups as controls during the different phases of the nine-week study. The study measured the effects of four Brain Gym activities, making up a six-minute sequence known as the PACE process, on weekly assessments of self-reported anxiety and performance on 14 technical-motor skill tests.

The PACE group experienced a 69.5% reduction in self-reported anxiety and an 18.7% increase in performance on skill tests, as compared to continued self-reporting of high anxiety and higher failure rate in the control groups not using PACE.

♦ Copies available for \$35 U.S. (including postage, with in the U.S.) Contact: Jan Irving, Ph.D., R.N.

The effect of Educational Kinesiology on response times of learning-disabled students

G.C.K. Khalsa and Josie M. Sift, Ph.D. ©1990
Published in *Brain Gym® Magazine, Volume II, No. 3,*
as "*Effects of Brain Gym® on Response Time*"

This study was completed with 52 children selected from special day classes. The Brain Gym group performed a sequence of activities, while the control group engaged in random movements for about seven minutes. All children were tested for visual response time before and after the movement activities. The results indicated that those children exposed to the Brain Gym movements improved on the response time, while those in the control group did not.

The effect of Educational Kinesiology upon simple and four-choice response times

*Josie M. Siff, Ph.D., and G.C.K. Khalsa ©1988
Reported on in the Brain Gym® Magazine, Volume II,
No. 3, 1988*

This study with 60 university students compared a control group with two experimental groups, one using only Brain Gym activities and the other experiencing Dennison Laterality Repatterning as well as the Brain Gym activities. The results indicated that the Edu-K groups were superior to the control group in their response time to a four-choice visual light display. The repatterned group improved by twice the amount of the Brain Gym-only group.

Group II Quasi-Experimental Research Designs

The effect of Brain Gym® on the cognitive performance of Alzheimer's patients

G. Drabben-Thiemann, D. Hedwig, M. Kenkies, A. Von Blomberg, G. Marahrens, A. Marahrens, K. Hager ©2001 Originally presented in German and English at the 2001 Educational Kinesiology Gathering in Kirchzarten bei Freiburg, Germany. This is from an edited English-language translation published in the Brain Gym® Journal, Volume XVI, No. 1, 2002

At the Clinics for Neurology and for Medical Rehabilitation and Geriatrics at Henriettenstiftung, in the Hanover region of Germany, groups of patients with Alzheimer's disease have been formed. Within the scope of activities in such training groups, the Brain Gym movements from Educational Kinesiology are used in training sessions, to enhance brain function as well as to increase body awareness.

Of the 24 test subjects in this study, 16 showed better performance after having done the Brain Gym exercises. Compared to the points achieved in the first test run, the points achieved in the second test run after the use of Brain Gym were 23% higher. Among five individual tasks, the highest growth was with task 5 (repeated word lists) at 79%. The second-highest growth was with task 3 (shopping) at 21%, followed by task 2 (conversion of numbers) at 18%. For task 1 (word lists), the increase was 13%. The test results suggest that, among Alzheimer's patients, spontaneous remembering and naming of everyday things improves after Brain Gym exercises.

Brain Gym® and its effect on reading abilities

*Cecilia Koester, M.Ed. (formerly Cecilia K. Freeman) and Joyce B. Sherwood, M.A. ©2000
Published in Brain Gym® Journal, Volume XV, Nos. 1 and 2, 2001 as "The effect of Brain Gym® on reading abilities"*

Developed and completed by Cecilia Koester, M.Ed, and Joyce B. Sherwood, M.A., this research study used a nonequivalent control group design. A total of 205 students were assigned to either the Brain Gym group or the control group. Throughout the 1998-99 school year, 12 teachers incorporated Brain Gym in the classroom curricula. The students and teachers did a minimum of 15 minutes of Brain Gym per day. An equal number of students were randomly selected for the control group, which did not use Brain Gym. Their test scores were compared, and the results indicated that those children in the Brain Gym group doubled their reading abilities over the control group, as measured by a standardized test.

The study can be used in several ways: 1) It can be replicated. 2) It is a model that can be taken to an administrator with a request that Brain Gym be introduced into the school. 3) It includes innovative suggestions on how a classroom teacher can use Brain Gym activities in the classroom.

♦ 58 pages. Copies are available for \$20 plus \$3.20 shipping in U.S. (There is a 30% discount, plus postage, for orders of 10 or more.)
Contact: Cecilia Koester, M.Ed.

Group III

Pre-Experimental Research Designs

Brain Gym® intergenerational mentoring program improves reading and decreases problem behaviors

Karen Peterson, M. A. ©2002

The Brain Gym Intergenerational Mentoring Program (IMP) was created to improve reading skills and emotional and behavioral outcomes in a group of 51 schoolchildren (grades K-5) in Maui, Hawaii, identified by teachers as needing special help. These students were paired with senior citizen mentors who were trained in Brain Gym exercises. The pairs met regularly to work on the exercises and develop mentoring relationships.

The Program Director, Karen Peterson, M. A., is a reading specialist, an Educational Kinesiologist, and the founder of Giving Back, a 501(c)3 nonprofit tax-exempt organization. Dana Weiner, Ph.D., psychologist and health services researcher of Northwestern University, served as the program's Outcomes Evaluator. Numerous measures were used to establish the pre- and post-intervention levels for reading ability, behavior problems, self-esteem, and strengths. The measures included multiple perspectives (parent-, teacher-, and self-report) to arrive at an overall picture of how the children responded to the intervention.

At the end of their participation in the program, the children had improved an average of .85 grades in reading level, according to the Slossen Oral Reading Test, and had significantly decreased hyperactivity and other symptoms of attention deficit hyperactivity disorder. It was observed that their interpersonal strengths had also significantly improved. The effects were more marked among females and among those 36 children who participated in the program for seven months or longer. The results suggest that the Brain Gym IMP, if implemented on a larger scale, is an effective tool with which to address reading difficulties and behavior problems among schoolchildren.

Individual Brain Gym® work in a learning-assessment lab

Susan J. Stewart, Ph.D. ©1998

Published in Brain Gym® Journal as "Research: Brain Gym in British Columbia Public Schools," Volume XIII, No. 1, 1999

In 1995, Susan Stewart, an educational consultant, worked on a project with children in a public school in British Columbia. The purpose of the project was to determine if Dennison Laterality Repatterning and Brain Gym activities would affect students' abilities to relax, coordinate, and cross the body midline in three dimensions. Ms. Stewart noted that the students' coordination improved, and that some students' oral reading, eye-tracking, and social skills improved as well.

The impact of Brain Gym® processes on sales of insurance

Robert Donovan with Jerry V. Teplitz, J.D., Ph.D. ©1993

Published in Brain Gym® Journal as part of "A Revolution in Training: Bottom Line Results of the Switched-On Selling Seminar," Volume XV, Nos. 1 and 2, 2001

In 1993, the South Carolina Farm Bureau Insurance Company held an open enrollment for an Educational Kinesiology course known as the Switched-On Selling (SOS) seminar, and about one-third of the sales force elected to participate. Participants in the one-day course learned the Brain Gym movements, experienced Dennison Laterality Repatterning, and explored the applications of these processes to specific aspects of the selling process.

For 120 days following the seminar, the company tracked results for the SOS group as well as for those salespeople who did not attend the seminar. The results suggest that the SOS salespeople made a significant change in their performance. The SOS group increased the number of applications received for insurance policies by 39%, as compared to no increase for the control group. Similarly, the premiums earned by the SOS group went up 101%, as compared to only a 30% increase for the non-SOS group.

The effects of Edu-K in a research project with second-graders

Al Milliren, Ed.D. ©1992

Published in Brain Gym® Journal, Volume X, No. 2, 1996

In 1992, South Carolina school counselor Dr. Al Milliren conducted a study investigating the impact of Brain Gym® on elementary school students who seemed to have potential yet who experienced difficulties in learning. After being tested for both auditory and visual perception, 12 second-grade students met in small groups twice weekly for five weeks. Each meeting included Brain Gym activities; some also included Edu-K balancing. Post-testing, conducted one month after the groups were concluded, indicated measurable improvements in visual skill performance but inconclusive changes in auditory skills. In his observations, Dr. Milliren concluded that results obtained from this small group might offer some direction for further exploration and research.

Using Brain Gym® for matching pitch

Donna Sewell ©1992

Published in Brain Gym® Journal as "Field Study on Using Brain Gym® for Matching Pitch, 1991-92," Volume VII, No. 1, 1993

In 1991 and 1992, Donna Sewell, a Brain Gym Instructor and elementary and secondary school-teacher, conducted two pre-experimental pilot studies to investigate Brain Gym's efficacy in subjects learning to match pitch. The studies were implemented at Taylorville High School in Salt Lake City, Utah, with the cooperation of the chorus teacher, Norm Wendel, and the permission of Dr. Ellis C. Worthen, Associate Director for Fine Arts for Granite School District in Salt Lake City. Participating students ranged in age from 15 to 17 years and had already been singing in a school setting for 10 years.

Study Group 1 had already received two months of excellent vocal training, yet a few were still unable to sing on pitch. Study Group 2 was untrained and most could not initially match pitch. Both groups received the same Brain Gym training. The average improvement of Group 1 was 34% at the time of the study and 41% a year later. Group 2 improved by an average of 64% at the time of the study and this percentage increased to 83% at the end of a month.

The effects of Edu-K on computer-related eye and muscle strain

Joan Spalding, M.S. ©1990

Published in Brain Gym® Magazine, Volume V, No. 2, 1991

In 1990, Joan Spalding, M.S., of Mancato State University, conducted this one-group pre-test/post-test pilot study in partial fulfillment of the requirements toward her Master's Degree. The purpose of the study was to determine whether Brain Gym® and Vision Gym® activities from Educational Kinesiology have an effect on eye and muscle strain or other physical symptoms generated by use of a computer video display terminal (VDT).

The project was conducted over a six-week period. Ten subjects from 29 to 50 years who used the VDT as a principal part of their work (four or more hours daily) punctuated each hour of computer time with a five-minute break for Edu-K movements. Half the subjects were male, half female. Half were entrepreneurs, half salaried employees. Statistically significant results indicated that computer breaks for Edu-K activities contribute to a lessening of visual- and muscle-related stress.

The effects of Brain Gym® with Special Ed students grades three through five

Carla Hannaford, M.A. ©1990

Published in Smart Moves: Why Learning Is Not All In Your Head, by Carla Hannaford, Ph.D.

In 1989-1990, Carla Hannaford, M.A., an educator and neurophysiologist, implemented a year-long, one-group pre-test/post-test study in the Hawaii School District. Hannaford incorporated Brain Gym in the classroom with 19 fifth graders in Special Education. Pre- and post-tests were completed using the Brigance Inventory of Basic Skills. Post-tests showed a one- to two-year growth for all students on the reading and comprehension testing, and growth of one or more years for more than 50% of the students on math scores greater results than might have been expected for Special Education students. Behavior patterns also improved.

The effects of combined Brain Gym® and mountaineering experiences on teen and preteen scholastic achievement

*George Gardner and Colleen Carroll-Gardner ©1989
Published in Brain Gym® Magazine, Volume IV, No. 3,
1990, as "Trekkling with Brain Gym® in Nepal"*

In 1989, under the supervision of teachers George and Colleen Gardner, preteens and teenagers learned and implemented Brain Gym for reading, communication, and mountaineering skills in a 14-day wilderness program in Colorado.

In this one-group, pre- and post-test research design, results from each two-week program suggest that most participants initially performed as much as one grade level below their true potential. After learning and integrating the Brain Gym activities, participants were able to perform at an average level six to eight months higher than their baseline score.

The effects of Edu-K in a remedial summer school program

*Helen Cox and Al Milliren, Ed.D. ©1989
Published in Brain Gym® Journal, Volume III, No. 2,
1989 as "Options in Health and Education: Developing
Sensory Readiness"*

In 1989, Helen Cox, Director of the Options in Health and Education Learning Center, and Dr. Al Milliren implemented a one-group pre-test/post-test study measuring the effects of Educational Kinesiology and Char-L Intensive Phonics in a remedial summer school program held at Brimfield Public Grade School in Brimfield, Illinois.

The program was funded by a Chapter One federal grant. Post-test results on Slosson tests showed a greater increase in math and reading skills than could ordinarily be expected in a summer school program.

The effects of Edu-K on psychometric measures of achievements of Special Ed elementary students

Lark Carroll ©1988

In 1987-88, Brain Gym® Instructor Lark Carroll supervised this one-group, pre-test/post-test study in a Berkeley, California, public school Special Ed class. The study was funded with a \$500 grant from Berkeley Public Education Foundation.

The purpose of the study was to determine whether Dennison Laterality Repatterning and Brain Gym used over an eight-month period would affect the word recognition, hand-eye coordination, and self-esteem skills of 10 students in second and third grade. Results showed greater improvement on the standardized tests than would normally be expected.

The effects of Edu-K in the classroom on beginning reading skills

*Dorothy H. L. Carroll, Ed.D. ©1987
Published in Brain Gym® Magazine Volume II, No. 2,
1988, as "Positive Activities"*

In 1987, 22 first graders in Pennsylvania, under the supervision of educator Dorothy H. L. Carroll, Ed.D., and classroom teacher Mary Ann Wittle, took part in this eight-week, one-group, pre-test/post-test study. The program consisted of Dennison Laterality Repatterning in the third and eighth week and about 15 minutes a day of Brain Gym activities.

The purpose of this study was to determine whether the Edu-K techniques would affect students' recognition and reproduction of letters or numbers, their auditory and visual discrimination of sounds and words, or their ability to match and reproduce designs as assessed by standardized tests.

The results indicated that nearly all of the children who made errors on the pre-tests improved their performances on those same tests 10 weeks later.

A longitudinal perspective on Edu-K outcomes with Special Ed students in Australia

Peter Whetton ©1987

In 1986-87, Peter Whetton, senior Special Education instructor at Christies Beach High School in Christies Beach, Australia, implemented this informal project over three terms.

The purpose of the project was to determine whether the inclusion of Brain Gym® movements would have an effect on the behavior, coordination, attention span, or academic skills of high school students in a Special Education classroom. In Part One of the study, 12 students were divided into four groups: the Brain Gym group or one of three control groups.

The results showed that the Brain Gym group improved markedly in all areas, the two control groups using movement showed small areas of improvement, and the control group with no movement showed no improvement.

In Part Two of the study, all students chose to do only Brain Gym for the nine-week period. Results showed continued improvements. In Part Three, Brain Gym was not used in the classroom for the eight-week period. Results showed that skills and behaviors declined until Brain Gym was reintroduced.

A four-year longitudinal retrospective of participants is included, showing an average age growth of four to five years in reading, math, and spelling, and more than seven years' growth in comprehension.

Descriptive Research

Group I Qualitative Research Designs

The results of the use of Brain Gym® movements in a network-marketing seminar

Jerry V. Teplitz, J.D., Ph.D. ©2002

This document is related to two other research documents. See: "The impact of Brain Gym® processes on sales of insurance" by Robert Donovan, 1993, and "Switched-On Selling Research Report" by Dr. Jerry V. Teplitz, 1992, updated in 2001

This pilot study included 25 network marketers who participated in a Switched-On Network Marketing seminar. The results are drawn from analysis of a 17-question pre- and post-seminar questionnaire, designed as a baseline and comparison measurement scale and administered at the beginning and end of the training day.

It is postulated that the use of Brain Gym in the network-marketing context will help to eliminate stresses that function as blocks to sales and marketing/promotional abilities. The seminar is structured around a series of Brain Gym Action Balances, each dedicated to a specific skill area, with a variety of Brain Gym movements being practiced.

Through the use of standard statistical measures, it was confirmed that the seminar had a significant (positive) impact upon participants.

The research report makes a presentation of the global results for the entire group for all questions, followed by a breakdown of results for a selection of questions. A comparison between the earlier Switched-On Selling seminar study and the style and results of this seminar and study is also made.

Switched-On Selling Research Report

Jerry V. Teplitz, J.D., Ph.D. ©1992, updated in 2001

Published in Brain Gym® Journal as part of "A Revolution in Training: Bottom Line Results of the Switched-On Selling Seminar," Volume XV, Nos. 1 and 2, 2001

An original study, completed in 1992, analyzes the attitudinal changes toward various elements of the sales process of participants who attended a one-day Switched-On Selling seminar. The 149 participants answered 18 questions at the beginning and also at the end of the session. The seminar included Brain Gym activities and covered many aspects of the

selling process, such as prospecting, presenting, and follow-up.

Two items revealed the highest level of change. On the statement "I handle rejection well," the number of salespersons in disagreement dropped from 56% at the beginning of the seminar to only 8% at the conclusion. On the statement "It is easy for me to make cold calls using the telephone," only 42% agreed or strongly agreed on the prequestionnaire. At the end of the seminar, 90% responded with "agree" or "strongly agree."

In 2001 the research report compiled all Switched-On Selling seminar data gathered to date. In comparing those who completed only the pre- and post- forms (374 participants') with those who also completed the one-month-later forms (61 participants) , we found a very high degree of correlation between the two groups. The combined responses indicate that changes not only held, they increased during the one-month period following the seminar.

Analysis of the data suggests that Switched-On Selling seminars could have a positive impact on the attitudes of salespeople, and the results could continue to increase out in the field.

♦ For a complete copy of the SOS Research Report, go to www.teplitz.com/switched-main.htm.

The results of a Brain Gym® course at an educational program for underprivileged children in Bangladesh

Peter Winkelmann ©2000

Published in Brain Gym® Journal, Volume XV, Nos. 1 and 2, 2001

In 1999, 10 UCEP (Underprivileged Children Educational Program) teachers completed their Brain Gym training in Switzerland with instructor Peter Winkelmann.

In February of the next year, some of these trainees taught a three-day course for 20 schoolteachers in Drake, Bangladesh. Two months after the course, a questionnaire was sent out to participants. Of the 20 questionnaires sent out, 15 were returned, and these showed positive results in the areas of communication, behavior, academic performance, and health.

Brain Gym® in a program for teachers and health staff in North Sulawesi, Indonesia

Peter Winkelmann ©2000

Published in *Brain Gym® Journal*, Volume XV, Nos. 1 and 2, 2001

A trained nurse and certified Brain Gym Instructor, Elizabeth Demuth, in her work for a hospital-based primary healthcare project in the Province of North Sulawesi, Indonesia, incorporated Brain Gym courses into the training component of the project as part of its program for teachers and health staff in the province. Those courses are sold on a cost-recovering basis, with expenditure for overhead and promotion being covered by the Swiss funding agency SOAM as part of their regular support to this project.

Mrs. Demuth has taught Brain Gym courses to more than 100 people in the province—mostly kindergarten and primary schoolteachers. This program is being positively received by the implementing organization, GMIM Health Services, and by various governmental educational institutions.

Questionnaires sent to kindergarten teachers six months after they had completed an introductory course yielded the following information: All participants who responded to the survey used Brain Gym in class, either daily or two to three times per week. The following personal improvements were reported: an increase in joy at work, improved concentration, improved relations between teachers and children, and an improved working atmosphere. Many participants reported that the performance of the children had improved—motor skills, learning songs and poems by heart, concentration, and speed in solving puzzles. All teachers said they would like to do an advanced course in Brain Gym.

Using Brain Gym® with hearing-impaired children in Flores, East Indonesia

Peter Winkelmann ©1999

Published in *Brain Gym® Journal*, Volume XV, Nos. 1 and 2, 2001

Beginning in 1997, Peter Winkelmann practiced Brain Gym (also locally called Learning Gymnastics) once a week with a group of 20 deaf children at the Handicapped Children's Home (Skoluh Luar Biase, SLB), in Ruteng, West Flores, for one and a half years. Besides noticing that the exercises were popular with the children, he observed that many of them made remarkable progress in several skills.

When comparing the children's abilities in mathematics, reading, writing, and sports before and after practicing in Brain Gym, measurable improvements were evident, which Mr. Winkelmann has documented through a number of empirical surveys.

A year of Learning Gymnastics (Brain Gym®) at Dorkas kindergarten, North Sulawesi

Peter Winkelmann ©1998

Published in *Brain Gym® Journal*, Volume XV, Nos. 1 and 2, 2001

At the time of the study, Dorkas kindergarten in Tomohon had 30 children between the ages of five and six. It had three staff members, led by Fride Ledi Lengkong.

Mrs. Lengkong's report of a year of regular Learning Gymnastics, consisting of 15-minute sessions in the morning and brief breaks during lessons, is as follows: teaching and learning became more animated and the concentration and participation of the children improved. During the course of the year, the children learned a record 60 songs and two plays by heart. Verbal expression improved and readiness to ask questions increased—a child who was to have been referred to a speech therapist improved so much that therapy became unnecessary. When the class moved on to primary school, their new teacher remarked on the noticeable vitality of Mrs. Lengkong's children.

Brain Gym® for preschoolers in a Headstart program

Gail E. Dennison and Diane Lehman ©1996

Published in *Brain Gym® Journal*, Volume XV, Nos. 1 and 2, 2001

In 1996 Gail Dennison, educator and co-developer of the Brain Gym program, and Diane Lehman, Brain Gym Instructor and nutritional consultant to Ventura County Headstart schools, implemented a five-week experimental Brain Gym program with 15 preschoolers.

The intent of the program was to support the development of readiness skills of posture and coordination and to help the children develop eye-teaming and listening skills for the near-point tasks of drawing, reading and writing. Significant observational and anecdotal data were realized from the study. Results indicated many improvements for individual students as well as their teachers, suggesting areas for further study.

The effects of Brain Gym® in a district-wide Canadian field study

Nancy McGovern, P.T. ©1991

In June of 1991, Nancy McGovern, District Physiotherapist for the Department of Special Services, implemented a qualitative small group study as a pilot program in School District 24, Kamloops, British Columbia, Canada.

The purpose of this study was to consider the possible inclusion of Brain Gym movements in the curriculum for learning-disabled students. Originally, nine schools, 12 teachers, 15 key students, and 3 sensorimotor P.E. groups were involved. Interest in the program eventually generated the involvement of one additional school, 21 teachers, and 12 key students.

Approximately 600 students in the 10 schools were involved. Perceptual tests, parents feedback, and teacher and student observations comprised the evaluation. Results indicated many improvements for individual students and for whole classes, and suggested elements were presented for implementation.

The effects of Educational Kinesiology on academic and social skills of high school students in Israel

Jeanette Primost ©1990

Published in Brain Gym® Magazine, Volume VI, No. 1, 1992

In 1989 and 1990, Jeanette Primost used Educational Kinesiology with 12 high school students in Tel-Chai, Israel. She saw each pupil weekly for six or more sessions. The first session began with a Wonder Balance for eyes, ears, writing, and whole-body movement. Jeanette let the students direct her as to what they needed, using the Edu-K balance format from both Basic and In-Depth processes. This qualitative, small-group report was coauthored by Jeanette and Chana Shar'abi, head of the learning center, who gathered data on students' learning skills, motivations, and personal feelings about exams from teachers, parents, and the students themselves. Results indicated that seven pupils out of the 12 benefited noticeably.

Group II Correlational Research Designs

The influence of Brain Gym® movements on the work of muscles and on dynamics and posture reflexes

Svetlana K. Masgutova, Ph.D. ©1999

Published in Brain Gym® Journal, Volume XI, Nos. 1 and 2, 2001. See also the following Brain Gym® Journal articles: "Educational Kinesiology and Vigotsky's Mind-Body Psychology," Volume X, No. 3, 1996; "Educational Kinesiology in Russia: The Possibilities in Education and in Psychological Practice," Volume IX, No. 3, 1996; and "Brain Gym® in Russia: Applications in Psychological Practice," Volume IX, No. 1, 1995

This descriptive study was designed to identify the correlation between infant reflexes, specific muscle groups, specific Brain Gym activities, and the Three Dimensions of learning as set forth by Paul and Gail Dennison. The high correlation in a population of 522 "at risk" children suggests the need for educators to address the physical development of children, enabling them to integrate the infant reflexes and postural dimensions through brain-integration technology such as the Brain Gym activities.

♦ Copies will be available in the near future.
Contact: Svetlana K. Masgutova, Ph.D.

Correlates of Educational Kinesiology repatterning pre-checks with "at-risk" populations

Robert Eyestone ©1990

Published in Brain Gym® Magazine, Volume II, No. 2, 1988, as "Heterolateral or Homolateral Processing"

From 1987 to 1990, Robert Eyestone, M.S., Educational Psychologist with the Weber County Mental Health Department in Weber, Utah, conducted three studies using the Edu-K repatterning pre-checks to determine whether specific populations were using one-sided or cross-lateral processing of visual and/or motor information.

In the 1987-88 study, 257 of 270 participants tested from a population defined as being at-risk tested one-sided; 37 of 310 participants in the group not defined as "at-risk" tested one-sided.

In the 1988-89 study, 539 of 552 participants from “at-risk” populations tested as one-sided processors.

In the 1989-90 study, 202 of 204 participants from “at-risk” populations tested as one-sided; 1 of 97 participants in the group not defined as at-risk tested one-sided.

This study was conducted specifically for the purpose of measuring the effectiveness of the screening device to determine ease of processing. Highly significant correlates were found between those tested as using homolateral processing and those in Resource, Handicapped, or Juvenile Detention Centers. Results suggest that the Dennison test for laterality may be an effective tool for screening individuals for further testing.

Author Index

B

Beigel, Dorothea 9

C

Carroll, Dorothy H. L. 13
Carroll, Lark 13
Carroll-Gardner, Colleen 13
Cox, Helen 13

D

Dennison, Gail E. 16
Diamond, Susan J. 5
Donczik, Jochen 6
Donovan, Robert 11
Drabben-Thiemann, G. 10

E

Eyestone, Robert 17

F

Freeman, Cecilia (see: Koester)

G

Gardner, Colleen (see: Carroll-Gardner)
Gardner, George 13

H

Hager, K. 10
Hannaford, Carla 7, 12
Hedwig, D. 10

I

Irving, Jan 9

K

Kenklies, M. 10
Khalsa, G.C.K. 6, 8, 9, 10
Koelman, Anka 5
Koester, Cecilia, 10
Kudryavtseva, G. 7
Kuznetsova, O. 7

L

Lehman, Diane 16

M

Marahrens, A. 10
Marahrens, G. 10
Masgutova, Svetlana K. 17
McGovern, Nancy 17
Milliren, Al 12, 13
Morris, Don 6

P

Peterson, Karen 11
Primost, Jeanette 17

S

Sewell, Donna 12
Sherwood, Joyce B. 10
Siff, Josie M. 6, 8, 9, 10
Spalding, Joan 5, 12
Steinbauer, Waltraud 9
Stewart, Susan J. 11

T

Teplitz, Jerry V. 11, 15

V

Von Blomberg, A. 10

W

Whetton, Peter 13
Winkelmann, Peter 15, 16
Wolfsont, C. A. 7

Z

Zinke, Kurt 9

Research Contact Information

The Educational Kinesiology Foundation/ Brain Gym® International

IRS 501(c)3 approved California not-for-profit public benefit corporation

Ventura Harbor Village
1575 Spinnaker Drive, Suite 204B
Ventura, CA 93001

Toll-free: (800) 356-2109
Office: (805) 658-7942
Fax: (805) 650-0524
Email: edukfd@earthlink.net
Web site: www.BrainGym.org

Edu-Kinesthetics, Inc.

Publications & Products—Distributor of books written and recommended by the Dennisons, including Brain Gym materials

P. O. Box 3395
Ventura, CA 93006-3395
Toll-free: (888) 388-9898
Office: (805) 650-3303
Fax: (805) 650-1689
Email: EduKBooks@aol.com
Web site: www.BrainGym.com

Susan Diamond, Ph.D.

Brain Gym Consultant and Instructor
13768 32 Avenue
Surrey, BC, Canada V4P 2B8
Fax: (604) 541-9329
Email: diamond@intergate.bc.ca

Jan Irving, Ph.D., R.N.

Brain Gym Consultant and Instructor
1555 Kent Street, NW
Salem, Oregon 97304-3605
Fax: (503) 581-8926
Email: esse@ncn.com

Cecilia Koester, M.Ed. (formerly Cecilia K. Freeman)

Brain Gym Consultant and Instructor, specializes in Brain Gym for children and adults who have special needs

P. O. Box 5655
Kailua-Kona, HI 96745
Phone: (808) 325-3863
Email: cecilia@iamthechild.com
Web site: www.iamthechild.com

Svetlana Masgutova, Ph.D.

Brain Gym Consultant and Instructor, specializes in developmental kinesiology

Ascension Private Educational Institute
of Psychology and Edu-K Assistance
5/30 Spalska Street
Warsaw, Poland 02-934

Home/Fax: 011-48-2-842-4257
Email: mskeduk@wp.pl
Web site: www.kinesiology.pl

Karen Peterson, M.A.

Brain Gym Consultant and Instructor

P. O. Box 791339
Paia, HI 96779

Fax: (808) 573-6587
Email: freesia@maui.net
Web site: givingbackmentoring.org

Joan Spalding, Ph.D. (Cd.)

Brain Gym Consultant and Instructor

New Options for Learning
1890 Kerr Gulch
Evergreen, CO 80439
Phone: (303) 526-0335
Fax: (303) 526-7975
Email: jlspalding@aol.com

Jerry V. Teplitz, J.D., Ph.D.

Brain Gym Consultant and Instructor, specializes in Brain Gym for business

Jerry Teplitz Enterprises, Inc.
228 N. Donnawood Drive, Suite 204
Virginia Beach, VA 23452
Office: (757) 431-1317
Fax: (757) 431-1503
Email: info@Teplitz.com
Web site: www.Teplitz.com

Chet A. Wolfsont

Brain Gym Consultant and Instructor

Kluwer Academic/Plenum Publishers
P. O. Box 322, 3300 AH Dordrecht
The Netherlands

<http://www.wkap.nl/prod/j/1068-0667>

Local Contact Information