

THE BASICS OF EDUCATIONAL KINESIOLOGY

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Abstract

Academic and cognitive skills have a muscular component related to the ability to maintain an appropriate posture and engage appropriate musculature. Educational Kinesiology addresses this physical/mechanical aspect of learning. Educational Kinesiology draws upon the ideas and techniques of several other disciplines including optometry. Brain Gym uses movement, posture and stimulation of acupuncture points to integrate brain function. Vision Gym develops the perceptual skills that support efficient vision. The balance process uncovers hidden deficits and identifies specific interventions to foster growth and development. For optometrists Educational Kinesiology can be a complement to vision therapy, or an option for patients not yet ready for vision therapy.

Key words

Brain Gym, balance process, centering dimension, Dennison (Paul and Gail), Educational Kinesiology (Edu-K), focus dimension, laterality dimension, laterality repatterning, muscle checking, balance, reflexes, stress, Skeffington circles, Vision Gym, Vision circles.

INTRODUCTION

During 25 years as a special educator and more recently as a private consultant working with children's learning issues, I have been struck again and again by the common ground shared by behavioral optometry and Educational Kinesiology (Edu-K). This has occurred in certain aspects of clinical practice and their underlying philosophies. Practitioners in these two fields sometimes provide care for the same patients. Further, I have found that optometrists who ascribe to a behavioral/functional model of the visual system are often receptive to other regimens that propose a wholistic approach to the diagnosis and remediation of inadequate scholastic and other performances. These are the motivations for my writing this article that presents a brief history, the basic philosophy, and the components of Edu-K.

BASIC HISTORY OF Edu-K

Edu-K is the fruit of twenty years of study and experimentation with all types of challenged learners by educator Paul Dennison, Ph.D. Dennison first became interested in the role of movement in learning through his own personal struggles, and later through his observations of the children at the Valley Remedial Group Learning Center in southern California, which he directed in the '60s and '70s. Dennison observed direct connections between his students' learning difficulties and the subtle dysfunctional movement patterns they displayed.

Dennison and his wife Gail founded the Educational Kinesiology Foundation (now Brain Gym® International) in 1987. Their belief in the interdependence of movement development, language acquisition and academic achievement has fueled the worldwide growth of interest in their ideas and techniques.¹ According to their website:

Today...Brain Gym is used in more than 80 countries and is taught in thousands of public and private schools worldwide as well as in corporate, performing arts, and athletic training programs.²

SOME DEFINITIONS

Kinesiology is the study of movement, the mechanics of how muscles and bones interact to enable us to move.

Educational Kinesiology (Edu-K) is the study of movement as it relates to brain integration and the application of movement to the learning process as well as to intellectual and athletic skills, communication, interpersonal relations and creativity. The Edu-K umbrella also covers Brain Gym, Vision Gym and numerous advanced techniques for enhancing learning and performance.³

Brain Gym,[®] a registered trademark of the Educational Kinesiology Foundation, refers to the introductory level of Edu-K and the twenty-six activities/movements taught in the Brain Gym 101 workshop.²

THE ROLE OF STRESS

Central to the conceptual grounding of Edu-K is the relationship between dysfunctional behavior and stress. Most of us know the experience of feeling muddled and less efficient under stress. Like stress-blocked learners, we access unconscious survival centers of the brain and lose our ability to act intentionally and skillfully.

Dennison found that underachievers in his school were very often in this survival mode. He used the term *low gear* to describe the state of imbalance that results when the higher brain switches off. One form of stress that causes this switching off in children is *excessive involvement in two-dimensional activities (those that involve a flat surface, like TV, video games, reading)*.⁴ Sometimes schools and parents introduce these activities prematurely, before their children have learned to alternate efficiently between near and distance vision. The trance induced by TV and video games can be so compelling that children abandon other forms of play that require depth perception. Stress may result because the human visual system is designed primarily for three-dimensional, not two-dimensional, vision. Chronic stress then pushes the child into a compensatory switched-off pattern which, once learned, is difficult to break.⁴

The level of stress or blockage accompanying a student's engagement in academic tasks is frequently quite obvious. However, other instances require sensitive exploration to determine precisely the particular aspect of a task that is too challenging. To facilitate this detective work Brain Gym practitioners sometimes use a tool from applied kinesiology called *muscle checking*. This is a technique for assessing bodily function developed in the 60's by Dr. George Goodheart and used by chiropractors and kinesiologists.⁵

In a Brain Gym session we usually use the deltoid muscle; the client holds an arm out to the front at a thirty degree angle to the body, and resists against light downward pressure, causing the muscle to contract to hold its position. When the muscle locks and the arm stays in place easily, it suggests that the nervous system is efficiently communicating its intention to the muscle fibers, and we infer an absence of stress. This is termed *high gear*. A weak muscle or an arm that wobbles or gives

way under pressure would signal the presence of stress and a *low gear* state.

The same principle operates when we ask someone to sit down before we deliver bad news. In response to severe stress, muscles give way causing a slumping posture or, at worst a fall. In response to a subtle stress, there is a subtle muscular response.

Optometrists might wish to use muscle checking to ascertain the level of stress during oculo-motor testing. For example, if the patient shows frequent loss of the target during version testing there is the inference that the task is stressful for the patient, i.e., *low gear*. Deltoid muscle checking should confirm this. In other instances it appears that performance is appropriate. However, muscle checking might indicate that the stress involved in these eye movements induces a low gear state; the patient cannot overcome the doctor's slight downward pressure on her arm.

A low gear state is appropriate for activities not yet developmentally possible, or mastered; beginning third graders might be high gear for addition and subtraction and low gear for multiplication. The Brain Gym practitioner's goal is for clients to attain a high gear state for all physical, postural, gross and fine motor components of the required academic tasks.²

The Dennisons believe that students can master what they need to learn in school only when the body mechanics are in place. They have adapted many familiar vision training activities and added them to their own innovative techniques. In the early 80's Paul Dennison began teaching twenty-six Brain Gym movements designed to counter the stress response by moving attention and energy away from the survival centers of the brain. He found that more energy was then available to activate the cortex and promote integrated visual, auditory and kinesthetic functioning. Academic and cognitive skills such as thinking, reading, and remembering have a muscular component related to the body's ability to maintain itself in an appropriate posture and to engage appropriate musculature. Brain Gym enhances this muscular component, which must be in place for efficient learning.²

In practice then, Edu-K is a whole brain integration program that utilizes simple body movements, postures and

stimulation of acupuncture points to integrate the functions of the brain. Optometrists and practitioners from many other disciplines have found in Brain Gym activities an engaging and powerful addition to their own techniques of intervention.

THE EDU-K DIMENSIONS

Edu-K proposes three primary dimensions of brain function: focus (front/back), centering (top/bottom), and laterality (left/right).

Focus Dimension: Focus involves the integration of the front and back of the body and the front (frontal lobes) and back (brain stem) of the brain. Practically, focus dimension relates to participation and comprehension, and to the ability to act on the details of a situation, while at the same time understanding new information in the context of previous experience.⁶ Reading comprehension is the quintessential focus dimension task.

When children develop normally, their proprioceptors give them reliable information about position in and movement through space, resulting in integrated postural and spatial awareness. For learning to take place, one must be supported at this most basic level of neurological function. Children with integrated postural and spatial awareness feel safe within their bodies. They process sensory information efficiently, easily find appropriate muscular support for their activities, and have a clear sense of physical boundaries. All of these conditions are necessary foundations for attention, concentration and retrieval of information stored in the back brain.

Children who lack integration in the focus dimension may be responding to some form of internal or external stimulation that makes them feel unsafe. Some squirm interminably because most of their energy is gathered in their long muscles. This is part of the fight-or-flight survival response. Some persevere, making the same error over and over. Some constantly scan their surroundings, being over attentive to peripheral visual stimulation in order to detect any potential danger. Others jump up and run to the window at the sound of a car or a lawn mower because their auditory systems are constantly scanning for sounds that signal a threat in the environment. No amount of asking these children to sit still and pay attention

will work, because their bodies are maintaining them in a state of constant arousal oriented toward survival.

In children who are either unable to attend or unable to keep perspective, the Dennisons would see a lack of integration in the focus dimension. Such children are sometimes labeled ADD, AD(H)D or OCD (obsessive/compulsive disorder). An optometrist might describe their behavior in terms of vergence and figure/ground difficulties.⁷

Centering Dimension: Centering refers to integration of the top and bottom halves of the body, and the rational top (cortex) and emotional bottom (limbic system) of the brain. This integration arises from the inter-relationships among proprioception, balance and vision.⁸ These systems work together to provide a sense of the center of one's body as a point of reference for the directions up, down, back, front, left, right, in and out.

Individuals with problems in centering often lack coordination between emotional content and abstract thought.⁹ As with some children with behavioral or learning issues, those who are either cut off from their emotions or too easily flooded with feelings are unbalanced in this dimension. Handwriting in which words and letters float chaotically out of alignment on the page mirrors an uncentered internal state. In this model, one would expect uncentered, poorly grounded patients to have difficulty with accommodation, vertical tracking and binocularity.⁸

Laterality Dimension: Laterality is concerned with the coordination of the right and left sides of the body and the right and left hemispheres of the cortex. Joined by the corpus callosum, the right hemisphere controls the left side of the body, and the left hemisphere controls the right side. Integration of the two hemispheres is essential for the development of all bilateral skills, including binocular vision and binaural hearing. Binocularity and lateral integration become the foundations for reading, writing, and communicating. Lateral integration is also essential for fluid gross motor activity and for moving and thinking at the same time. A student with deficient bilateral skills may have difficulty crossing the midline and be labeled learning disabled or dyslexic.⁴

Some students write with their heads tipped down to one side almost on the ta-

ble and their papers turned so that the line of script goes straight out from their noses. It is proposed that these students are processing information with one eye and one hemisphere. Their compensatory posture helps them to suppress confusing information from the unfocused eye, but it also keeps them from activating and using the resources of the other hemisphere. An optometric exam would probably show poor oculo-motor coordination for horizontal tracking across the midline for these cases. In the Brain Gym model, fluent oral reading with poor comprehension, hesitant error-filled oral reading with relatively good comprehension, and reversed letters also signal a lack of hemispheric balance; of poor integration in the laterality dimension.

BRAIN GYM

The ideal high gear state for learning, playing and interacting is one of whole brain integration with access to all of one's resources. Dennison found that certain movements have the effect of bringing students with dysfunctional learning patterns into balance so that they can experience that integration. Ease in learning and performance then comes naturally because the body is relaxed and one's posture supports access to all parts of the brain. According to the Dennisons, Brain Gym activities promote such a state.⁴

Experimental research by Jan Irving, Ph.D. of Chemekata Community College in Salem, Oregon, supports this claim. In a multiple baseline design with three separate control groups, Dr. Irving used four Brain Gym activities, in a sequence the Dennisons call *PACE*, as an isolated variable. She measured their effect on self reported anxiety (69.5% reduction) and weekly performance on skill tests (18.7% improvement) of first year nursing students.¹⁰ Other research studies are available at <www.braingym.org>.

PACE

The four Brain Gym activities Dr. Irving used in her research have become the universal Brain Gym warm-up. *PACE* is a quick, easy, efficient way to achieve readiness for any activity from athletics to academics.⁴ Brain Gym instructors recommend performing them in the order indicated below; however, the acronym stands for Positive, Active, Clear, Energetic.

Energetic: Drink a sip of water. (Best done throughout the day.)

Optimal hydration enhances the brain's ability to process information efficiently. Water ionizes salts, providing the electrolyte environment needed for electrochemical conduction of nerve impulses. It increases the polarity of membranes, resulting in more effective nerve firing (a higher signal-to-noise ratio). Water also increases the affinity of hemoglobin for oxygen, improving oxygenation of the blood and brain tissues.

Clear (Brain Buttons): While holding navel with one hand, rub thumb and finger of other hand in hollow area on either side of the sternum just below the collar bone for 30 - 60 seconds. Massaging the Brain Buttons, which lie above the carotid arteries, increases the flow of freshly oxygenated blood to the brain. These indentations, the kidney-27 acupressure points, connect with clusters of glial cells which send electrical messages to the pituitary, the body's master gland. The navel, with nerve connections to the vestibular (balance) and reticular activating (wake-up) systems, tells the brain where the body's center of equilibrium is located.

Active (Cross Crawl): Touch hand to opposite knee, alternately moving one arm and opposite leg. Even better: touch elbow to knee. Continue for 1 minute. Done standing, the movement is more like marching in place than crawling. The alternating right and left hand touching the opposite knee activates the left and right sides of the brain and body simultaneously, and connects the upper and lower halves of the body. The combination of movement and touch stimulates both the motor and sensory cortex, and increases hemispheric communication across the corpus colossus. Movement is also proposed to promote myelination of neurons by glial cells.

Positive (Hook-ups): Part 1: Cross ankles, hold arms out with hands back to back, cross one arm over the other so that palms touch, clasp hands and bring them to the chest. Touch the roof of your mouth with your tongue. Sit this way for one half to one minute listening to your breath. Part 2: Uncross legs, place feet squarely on the ground, release arms, and hold finger tips together. Sit this way for another half to one minute.

Hook-ups activates the sensory and motor cortex, stimulating the right and left hemispheres of the neocortex. It connects

and balances the body's electrical circuits, allowing calm relaxation. The tongue on the roof of the mouth connects the limbic system (emotional centers) with the neo-cortex (reasoning centers), allowing rational processing of emotionally charged issues and increased choice of responses and actions.^{11,12}

These "warm up" activities can be performed in less than four minutes. Many Edu-K practitioners and their students use them as a daily practice, or as needed to enhance performance under stress. I begin every session with PACE; I assume that we will accomplish more by starting out from the internal posture of alertness and calm that the exercises provide.

Although the Dennisons particularly recommend PACE, any of the twenty-six Brain Gym exercises can be used to "warm up" before academics, homework, an important presentation, sporting event, or any challenging task. Several optometrists have informed me that they use at least some of the exercises prior to vision therapy (VT) sessions with patients they feel will benefit from these activities.

Specific Brain Gym movements seem to be more helpful with particular skills. Eleven "Midline Movements" (among them Cross Crawl) enhance lateral integration through various ways of crossing the body's midline. Nine "Energy Exercises" (among them Water, Brain Buttons and Hook-ups) stimulate acupuncture points to provide grounding, helping one to stay centered and organized. Six "Lengthening Activities" work with muscles to promote integration of primitive reflexes, enabling learners to take the risks necessary for self expression and full participation in the learning process. The Dennisons claim that:

Once an individual learns to move correctly, integration becomes an automatic choice, and the learner does not depend upon Brain Gym movements to maintain integration. People find Brain Gym helpful over a short period of time to establish a positive behavior; many use the activities daily. Students often return to Brain Gym routines when new stresses or challenges appear in their lives.⁶

VISION GYM AND VISIONCIRCLES

Vision Gym™, taught in the Visioncircles workshop, adds thirty-one

Table 1. The Visioncircles¹⁴

Circle	Skill	Summary
1. The Observer State	To notice	All learning begins with discovery.
2. The Animated Body	To move	Proprioceptive and vestibular awareness are kinesthetic "vision."
3. The Resonant Space	To listen	The soft focus of hearing, sensing, and feeling is another kind of vision.
4. The Nurturing World	To grow	Memory and peripheral awareness provide background and perspective to support and enrich vision.
5. The Builder	To create	When sensory experience is integrated with abstract thought we can manifest a vision.
6. The Internalizer	To feel	Memory and imagination combine to create inner vision.
7. The Communicator	To relate	Expressive and receptive eye contact, visual gesture, body language, listening and speech bring us to shared vision.
8. The Synergist	To see	Vision results when all the skills work in concert.

complementary exercises for drawing out natural integrated visual function. Like Brain Gym, they use eye and body movements, stimulation of acupuncture points and breathing.²

The thirty-one Vision Gym exercises are designed to develop all the perceptual skills that comprise and support efficient vision. They promote relaxation and flexibility in the vision system, integration of vision with movement and the other senses, binocularity, near focus skills, peripheral vision, perception of color and depth, and visualization.¹³ Many Vision Gym exercises are very different from what is usually employed in optometric vision therapy (VT), while others are quite similar. A major difference is that the Vision Gym practitioners do not have the legal privilege of using ophthalmic devices.

The Visioncircles Workshop is open to graduates of the introductory Brain Gym 101 course. In addition to learning Vision Gym, participants in the workshop focus on eight aspects of perceptual intelligence that contribute to vision.

The first three circles are aimed at letting go of visual dependence and control, balancing these through more efficient kinesthetic and auditory processing. Circles four to six focus on...big picture, vision of details, and internalizing vision through memory and imagination. Circles seven and eight integrate...perceptions in the context of

one to one relationships and self-expression within our community and world.¹³

Table 1 presents the name, skill and summary for each circle.

The concept of a Venn diagram representing interactive modules is not new to behavioral optometrists; they will recall Skeffington's Circles where the interactions result in the emergent, vision.¹⁵ The Dennisons relate Skeffington's circles to their circles as follows:

'Antigravity'... corresponds to the Edu-K concept of bilateral development explored in Visioncircles in the second and fifth circles... 'Centering'... corresponds to the Edu-K concept of centering, emphasizing interpretations of spatial information through kinesthesia (explored in circles two, three, four and eight)... 'Identification'... skills are developed through fine motor... and noticing processes in the first, fifth and sixth circles. Skeffington's fourth circle, 'Speech-Auditory,' symbolizes the development of language. In Visioncircles, these audition processes are explored in the first and seventh circles.¹³

See Figures 1A and B.

THE BALANCE PROCESS

Another component of Edu-K is the balance process. Unlike warm-ups for general learning readiness, a balance uti-

Vision Circles

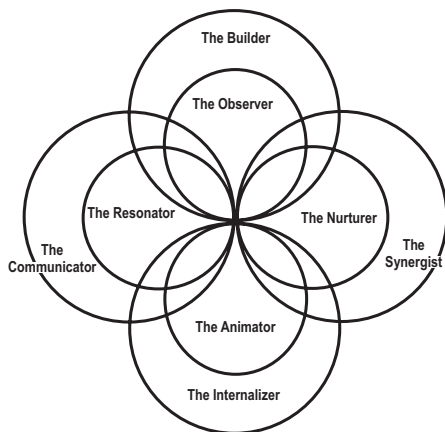


Figure 1A. Visioncircles adapted from the cover of the *Visioncircles Handbook*.¹³

lizes techniques to alleviate particular energy blocks in particular performance areas such as handwriting, spelling, reading comprehension, math, or social skills.

After deciding on a goal, the student performs a number of pre-activities designed to elicit the physical disarray he/she usually experiences in the context of that goal. Often the student can identify discomfort or tightness in a particular part of the body. Other times the facilitator uses muscle checking, to make inferences about the presence or absence of stress. This part of the “balance” provides an opportunity for education and insight about dysfunctional patterns of behavior that arise under stress.

The student then chooses corrective interventions from a learning menu which includes, but is not limited to Brain Gym, Vision Gym, or Repatterning (see below). The menu procedures redirect energy to the parts of the mind/body system that tend to shut down during the goal activity. Some items on this menu draw on techniques from applied kinesiology and acupuncture. Afterwards the student revisits the pre-activities, experiencing a new ease in functioning and, through either noticing or muscle checking, a clear indication of reduced stress. *Homeplay* activities (from Brain Gym or Vision Gym) are performed daily for a week or two help to maintain the new level of integration. Balances can be done with individuals or groups.

A balance procedure is facilitated by someone who has taken at least Brain Gym 101, the 24 hour introductory course

Skeffington Circles

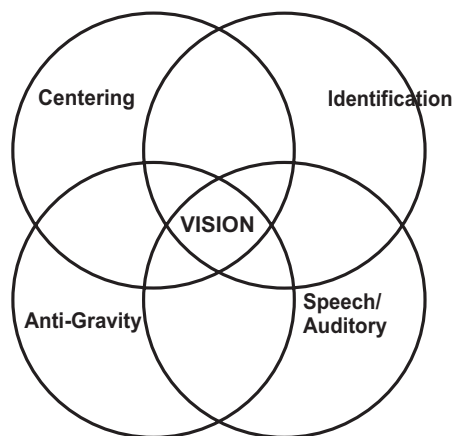


Figure 1B.

offered through Brain Gym International. However, many licensed Brain Gym consultants and instructors have hundreds of hours of training in Educational Kinesiology and related fields. Their clients benefit from an array of skills and techniques well beyond the 26 Brain Gym movements.

LATERALITY REPATTERNING

The Dennison’s Laterality Repatterning is a process designed to enhance or awaken cross-lateral movement and eye teaming skills that may not have adequately developed in infancy and early childhood. Dennison Laterality Repatterning is proposed to stimulate the key stages of laterality development, from infancy through walking, and acts to eliminate compensatory visual or postural habits and adaptations.³ Hannaford has discussed Laterality Repatterning as follows:

Infant crawling has long been known to be crucial for activating full sensory functioning and learning. Crawling involves movements that cross the body’s midline and use both sides of the brain in concert. Our cross-lateral movements help us to build the capacities that allow full sensory access (auditory, visual, proprioceptive) from both sides of the body. (Later on, walking incorporates all of our early stages of development from infancy to toddling.) Dr. Dennison discovered that some people he worked with were unable to Cross Crawl but were proficient at

homolateral movement (arm and leg on the same side of the body moving together). These people generally accessed brain hemispheres in a one-sided way, and suffered stress from lack of full sensory-motor functioning. Dennison also discovered a high correlation between the inability to Cross Crawl and the tendency toward learning difficulty.

Drs. Doman and Delacato coined the term patterning to describe the process of repeating a natural movement again and again to imprint it in the body’s physiology even years after the developmentally appropriate time has passed. In 1981, Dr. Dennison coined the term repatterning, meaning a return to the natural, integrated pattern imprinted within the nervous system during normal development. For many people, stress disrupts cross-lateral patterning. They must compensate for this disruption with less efficient patterns of movement, sensing and learning.

Dennison Laterality Repatterning is a specific series of activities that re-establish efficient, integrated patterns among cross-lateral movements, vision, and hearing. The Laterality Repatterning activities (some of which are homolateral, i.e., on one side only) are performed with the help of a trained instructor. This experience enables the learner to recognize the inefficiency of homolateral movement and homolateral sensory processing, which contrasts strikingly with the more efficient, integrated state as learning becomes easier.¹

REFLEXES

Edu-K workshops offer not only Dennison Laterality Repatterning, but also four related processes: 3D Repatterning, Core Muscle Repatterning, 42 Muscle Repatterning and Homolateral Reflex Repatterning. In the advanced Total Core Repatterning and Creative Vision workshops, Dr. Dennison teaches the use of these techniques for integrating the tonic neck and other reflexes. I perceive a growing interest in optometry in the relationship between vision, learning problems and childhood reflexes as evidenced by a recent book review in this Journal¹⁶

and continuing education presentations by Samuel Berne, O.D., and by Carol Marusich, O.D. Among the symptoms of a residual symmetric tonic neck reflex, for example, are poor eye-hand coordination, difficulty with near point focus, poor focus recovery and trouble sitting, sometimes mistaken for ADD or AD(H)D.¹⁷

Svetlana Musgutova, Ph.D., director of The International Neurokinesiology Institute in Warsaw and Edu-K International faculty member, teaches other advanced workshops on the integration of dynamic and postural reflexes into the whole body movement system. She performed her research from 1994 to 1999 at Ascension Institute in Moscow. Dr. Masgutova identified correlations between Dennison's Three Dimensions and seventeen different infant reflexes, eleven specific muscles, and the twenty-six Brain Gym activities. In her population of 522 (240 kindergartners, 42 elementary school children, and 240 youths and adults) for example, muscle checking revealed that 87% of the 362 who lacked integration in the Centering Dimension also demonstrated patterns of an unintegrated Bauer crawling reflex and had a "switched off" pectoralis major clavicular muscle.¹⁸

Dennison's Repatterning or Dr. Musgutova's reflex integration work could be an adjunct to VT for optometrists who do not include reflex integration in their practices. Some optometrists report that VT proceeds faster and more efficiently once key reflexes have been integrated.¹⁹

CREATIVE VISION

In further application of their work to visual issues, the Dennisons developed the advanced Edu-K course, Creative Vision. According to its manual, the Creative Vision workshop:

explores the use of Edu-Kineshetics to improve visual information processing by unveiling hidden perceptual gifts blocked by the survival mechanism....The Creative Vision material draws deeply from Dr. Dennison's experience working with behavioral optometrists... This course also offers more in-depth applications of movement to specific learning, drawn from the theories of Doman and Delacato, Jean Ayres, Maria Montessori, and other pio-

Table 2.

Dimension	Skills
Focus	Expressive Abilities: Total Attention, Analysis, Projection Receptive Abilities: Perspective, Exploration, Assimilation
Centering	Visual Recovery, Visual Unity
Laterality	Crossing the Midline, Figure/Ground, Visualization, Sensory Involvement

*neers in the field of sensory/motor development.*⁸

A practitioner offering a Creative Vision balance would relate visual skills to the three Edu-K dimensions in the ways shown in Table 2.

An original contribution from the Dennisons to the field of vision improvement is their combined use of color, eye movement, and stimulation of acupuncture points. In a Creative Vision balance for example, a practitioner might check a student's muscle resistance while stimulating cones in the fovea of the eye with the color red, followed by another check with blue to stimulate the rods in the retina's periphery. If one color results in a low gear response, then the student would do pursuits with that color, while at the same time firmly holding or rubbing the "Edu-K Eye Points" that reverse the low gear response. The result is proposed to be increased ease and comfort in using the eyes for either near or distance vision.⁷ The Dennisons claim that *Creative Vision work has proven its value as a tool for release of visual/postural compensations and reestablishment of whole brain visual processing.*⁸

CONCLUSION

Edu-K is a system of care that has evolved over more than forty years. It appears to have many philosophical and operational commonalities with behavioral optometry. Indeed, the Dennisons have adapted and acknowledged many of the ideas and techniques proposed by optometrists A.M. Skeffington, G. N. Getman and others. The same is true for non-optometrists who have had an influence on behavioral optometric thinking such as Arnold Gesell, Darrell Boyd Harmon and Newell Kephart. Further, the Dennisons have incorporated and applied ideas and techniques utilized in chiropractic medicine, kinesiology, yoga and acupuncture.

Brain Gym and Vision Gym exercises are easy to learn, easy to teach,

non-invasive, non-aerobic, consume very little time and require no equipment. For the most part children find them enjoyable and quickly learn which ones are most effective for their own particular needs. They are easy to incorporate into the daily home, office or classroom routine. Promoters of Edu-K claim that simply using the four PACE exercises can bring individuals of all ages and abilities into a state of learning readiness. Balances with a trained facilitator for sensory integration, integration of primitive reflexes, or for specific academic goals can go even deeper. Considerable anecdotal evidence and a growing body of research support these claims.

Optometrists might wish to refer to a Brain Gym practitioner for their patients who are not yet ready for VT, or as an adjunct to ongoing VT. My experience has been that in many instances Edu-K can have a remarkable impact on overall performance in the clinic, at home and at school. A visit to www.braingym.org will provide further information and a directory of practitioners worldwide.

Ms. Rentschler is a licensed Edu-K practitioner.

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EDITORIAL continued

Another opportunity came along in 1993 when a number of optometrists in Australia, including me, became clinical supervisors for optometry students from France. The students spent six months in the practice developing their clinical skills. This provided another learning experience. I now had to share my model of the visual process with others, helping them to understand. What a challenge!

The year 1998 was memorable as it was my first as a member of the OEP Foundation Board of Directors. The collective skills of this group of people are truly awesome. In this group I have worked with great thinkers, organizers, lecturers, managers and just nice people who care for others. The leadership style of this organization is to guide, support, encourage and work together. Once this group learnt to understand and speak Australian the working style has similarities to the working of the ACBO board so working with "furiners" has been a joy.

It has been a challenging journey since my initial belief that "I'm not going to have anything to do with children and that binocular vision stuff" to my present position as president of OEP. I learned much about myself and about the profession. My major revelation was that, although they are very important components of practice, optometry is something more than the prescribing of glasses and considerations of ocular disease. At the present time this realization must be difficult for many recent graduates because of the expansion of optometric practice in many areas of the world. A number of colleagues have expressed the belief that optometric curricula have changed to provide a significant bias toward the diagnosis and treatment of ocular disease. Nevertheless, I perceive that the complex we term behavioural/functional/developmental optometry is alive and well. I base this on the number of young optometrists who attend OEP's continuing education programs and the number who study in Australia through the Masters course in Behavioural Optometry. It is exciting to see many of

these people continue on to become Fellows of the Australasian College or Fellows in the College of Optometrists in Vision Development. It is to individuals in this age group all over the world that I shall devote my presidency.

In this regard I will work with the Board to promote the concepts and practice of behavioural vision care as an integral component of total vision care to optometrists around the world. Caring for eye health is important, but in this world which is increasingly ruled by the use of computers, the productivity loss to industry from people having inefficient visual skills is significant. Reduced visual stamina and increased visual/mental fatigue are symptoms that are seen in practice in increasing amounts. All optometrists need the skills to address these issues.