# Educators: Scientific studies document that fitness enhances learning, attention and behavior

Participate in the Sparking Life movement to help your students maximize their academic performance

Studies abound showing the correlation between fitness and optimal brain functioning. To spark meaningful change in our student's lives, we need an exercise revolution.

**Sparking Life** is prepared to lead the way; we need you to join the movement. Here are some important guidelines that will help you make a difference:

#### 1) NUMBER ONE PRIORITY: Major Attitudinal-Shift Needed

- Educators need to rethink the traditionally low value ascribed to P.E. within the overall school curriculum, enhancing its prominence and visibility by using P.E. as a tool that enhances both learning and teaching, all while mobilizing the school community
- Abandon "Sports" focus in P.E. for a "Physical Fitness" focus based on science
- Allow students to take a leadership role in P.E. class, shifting toward meaningful student autonomy and self-determination
- Acknowledge, promote, and act upon the correlation between exercise and cognition and optimal brain structure development
- Allow students to incorporate non-disruptive physical movement during and throughout regular academic classes, implementing appropriate classroom environments and clear governing rules
- View exercise as a potentially powerful modulator of negative student conditions that inhibit academic and social success (i.e., ADHD, anxiety, stress, depression, and low self-esteem)

#### 2) Exercise Level = Intensity x Duration

- Exercising at rigorous, vigorous heart levels (for even short periods of time) has tremendous physical and mental benefits
- Studies have shown that P.E., as presently constituted in many schools, fails to attain sufficiently
  high intensity, and overall physical activity remains far too infrequent during the school day, let
  alone per week
- Elementary, Middle School, and High School levels should ALL exercise

## 3) Scheduling of Physical Activity

- Critical to carefully plan and regulate the timing of P.E. class and voluntary supplemental exercise time during the school day
- Physical activity should be scheduled early and often throughout EVERY school day to ensure that both behavioral and cognitive modulations are seen DURING the school day

## 4) Make P.E. Fun - not a fitness "boot camp"

- Exercise and activities should be fun, student-driven, and culturally relevant to the unique student populous of each school
- Allow student feedback for types of activities and the overall exercise program
- Some students enjoy fitness "boot camps", however many do not
- Use "small-sided" games (e.g. 3-on-3 basketball) and constant activity to promote inclusion

### 5) Voluntary vs. Involuntary Participation, and Exercise/Play Paradigm

- Studies have indicated that voluntary participation in culturally relevant activities outperform results from forced exercise
- Onus on school administration and teachers to provide activities that provide both vigor and rigor for the heart, while attaining perception of fun and enjoyment for the participant
- Importance of choice due to each student's perception of whether certain exercise activities are "fun," which remains in the eye of the beholder
- As Dr. Stuart Brown contends in Play, different people may display a number of different "play
  personalities" (i.e., perceiving "rough and tumble play" as acceptable as long as it sustains
  mutually rewarding fulfillment for all parties involved
- Though injury can and will occur, recuperation and recovery can help to build greater resiliency.

## 6) Immediate Feedback for Students

- Provide quick and timely feedback regarding students' individual fitness levels, including the effect of personal fitness on academic performance and quality of life
- Data can include heart rate, BMI or other body composition data, as well as mood scales that reinforce emotional enhancements to the student

#### 7) Static/Stationary vs. Balance

Exercise should be varied and include components of balance whenever possible, because
exercise that incorporates elements of balance trains different parts of the brain (Cerebellum) and
creates a more enriching learning experience

## 8) Outside vs. Inside Activity

- Studies have found outdoor exercise superior to indoor exercise
- Outside environments provide more enriching environments, both in sensory perceptions (sights, smells, noises), as well as providing increased demands on mental complexity (choices involving routes, unevenness of land, balance, and coordination requirements, etc...)

## 9) Teacher Modeling of Fitness Hygiene and Transparent Pedagogy

- The benefits of exercise on mood and cognition extend to teachers as well as students
- When teachers join-in and lead, thereby modeling good fitness hygiene, students and the whole school community benefit. Modeling represents a powerful and long-held teaching tool.
- Essential to develop a deep understanding by each student regarding the scientific importance of P.E. to both academics and health

#### 10) Equipment, Supplies, and Funding

- Expensive does not mean superior
- 'Attitudinal Shifts' are free improvements to student achievement and tests scores do not require significant financial investment
- Heart-rate monitors should only be used with older high school and middle school students...however all students can be taught how to self-measure heart rate using rudimentary/easy techniques
- In cramped and underfunded inner-city schools, Bill Cosby's initiative has school administrators turning hallways, stairways, and parking lots into moving conveyor belts that allow students space to simultaneously exercise in order to allow the whole school to benefit
- While expensive exercise facilities have gone fallow, free student/teacher in-school collaborations
  have achieved full student participation and acceptance...how exercise is integrated and
  broached to the students and teachers alike matters much more than dollars spent