Enhance P.E. Task Force

Introductions

Task Force Member

9 AM to 12 PM
December 19, 2012

Enhance P.E. Task Force
Training Requirements

- Open Meetings Act
- 2012 Ethics

Shawn Backs

Bylaws
Public Act 97-1102 and Task Force Charge

Enhance P.E. Task Force

Promote and recommend enhanced physical education, including:
- Identifying and seeking local, state, and national resources to support education for teachers and other school and community stakeholders;
- Promoting training and professional development in enhanced physical education;
- Developing and utilizing metrics to assess the impact of enhanced physical education among school district and school officials;
- Educating and promoting leadership on enhanced physical education;
- and such other strategies as may be identified by the task force.

Purpose #1

Public Act 97-1102

David Carvalho

Task Force Charge

Public Act 97-1102 and
Purpose #2
• "Make recommendations to the Governor and the General Assembly on Goals 19, 20, 21, 22, 23, and 24 of the Illinois Learning Standards for Physical Development and Health. The Task Force shall focus on updating the standards based on research in neuroscience that impacts the relationship between physical activity and learning."

– Report must be filed with GA and Governor by August 31, 2013

Sandy Noel

2013

– Report must be filed with GA and Governor by August 31, 2013, "neuroscience that impacts the relationship between physical activity and learning."

on updating the standards based on research in Development and Health. The Task Force shall focus of the Illinois Learning Standards for Physical Development and Health, General Assembly on Goals 19, 20, 21, 22, 23, and 24, and 24 "Make recommendations to the Governor and the

Purpose #2

Public Act 97-1102
Illinois Learning Standards:
Physical Development and Health

• Adopted in 1997
• Developed using:
  – NASPE National Standards for Physical Education,
  – National Health Education Standards,
  – 1985 State Goals for Physical Development and Health,
  – other states’ standards
  – National Health Education Standards,
  – NASPE National Standards for Physical Education,

Physical Development and Health
Illinois Learning Standards:

• Goal 24 - Communications and Decision-Making
• Goal 23 - Human Body Systems
• Goal 22 - Health Promotion, Prevention, and Treatment
• Goal 21 - Team-Building
• Goal 20 - Physical Fitness
• Goal 19 - Movement Skills
• Goal 18 - Movement and Health

and local outcomes from Illinois school districts.
Illinois Learning Standards:

Physical Development and Health

- The changing context:
  - New NASPE standards
  - New neuroscience research on the relationship between physical activity and learning

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- Health crisis among Illinois youth
- New neurosciences research on the relationships
- New NASPE standards

The changing context:

Physical Development and Health

Enhance P.E. Task Force
Defining Enhanced PE

Paul Zientarski
Naperville, Illinois
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Learning is a Moving Experience

Paul Zientarski
Enhance Physical Education Task Force
Illinois Enhance Physical Education

Defining Enhanced PE
Correlation between standardized test scores and fitness

Fitness and Academic Achievement

Figure 2. Mathematics Mean Scale Score (California State Test) by the Number of Fitnessgram® Tests Passed (2004)

Correlation between standardized test scores and fitness

Population:
- Grade 5 (371,198 students)
- Grade 7 (366,278 students)
- Grade 9 (298,910 students)
Researchers at West Virginia University …
Cohort of 725 students followed from Wood County, West Virginia


Grade 5 Grade 7

After two years, evaluated:

- fitness levels
- standardized academic test

The study found that academic performance increased when students’ fitness improved.

Children with the highest average standardized test scores, which included reading, math, science and social studies, were the ones who were deemed fit at the start and end of the study.

Children with the highest average fitness levels and fitness levels declined when fitness declined.

Wood County, West Virginia

Researchers at West Virginia University …
What were the findings in Texas?

2.47 million students tested

Most telling test for academic success

Cardiovascular (CV) Fitness Corresponds with Academic Performance when Schools Stratified by State Rating System

**Swedish Study**

The finding was that higher IQ scores were found in those men with the better cardiovascular conditioning, even when comparing TWINS!

The sample included a total of 1,221,727 men:
- 1432 were identical twins
- 3100 were fraternal twins
- 270,000 were siblings

Performed - study of all Swedish men born between 1950 on 1976—

- performed physical fitness at 15 and 18 and made their analyses.
- on physical fitness and test scores on entering military at 18. As well they had information entered the military—At age 15 they had grades and test scores at 15 entered the military—At age 15 they had grades and test scores at 15.

The finding was that higher IQ scores were found in those men with the better cardiovascular conditioning, even when comparing TWINS!

**Reach Test**
- Right Arm
- Left Arm

**Achievement Standards**
- SAT = Illinois
- Math SAT
- Reading SAT
- Science SAT

**Per cent l e ft**
- Push-ups
- Pull-ups
- Laps
- Face

**Percentiles**
- Body Fat
- BMI

**Odds of meeting SAT standards**
- n = 838
What is the science or empirical evidence to substantiate these findings?

Correlation between Fitness and Brain Activity

9 and 10 year olds students

Hard Test

Easy Test

Higher Fit

Lower Fit

Slide compliments of Dr. Chuck Hillman, University of Illinois
Find a Partner

Rock, Paper, Scissors

1st time beat your opponent
Rock, Paper, Scissors

2 handed beat your opponent

Rock, Paper, Scissors

2nd time lose to your opponent
Consistent exercise, and certain types of specific exercises, can both temporarily and permanently affect the way your brain is able to focus, its ability to deal with stress and anxiety, and its ability to learn ... 

"Exercise is like fertilizer for the brain ... it's so good, it's like Miracle Gro."

- Dr. John Ratey, Harvard Brain Researcher

Enhanced Academic Performance

Exercise Creates New Brain Cells

BDNF (Brain-Derived Neurotrophic Factor) functions to translate activity into synaptic & cognitive plasticity in the adult nervous system. Its growth & differentiation, as well as its role in regulating survival, has matured to include the adult nervous system. BDNF is a neurotrophin whose status as a regulator of the survival, growth & differentiation of neurons during development has matured to include the adult nervous system. BDNF functions to translate activity into synaptic & cognitive plasticity in the adult animal.
Low BDNF is no small thing as it has also been associated with depression, Alzheimer’s disease, Obsessive-Compulsive Disorder, and other dementias, Huntington’s Disease, Rett Syndrome, and Schizophrenia.
Exercising prepares the mind by:

- Improves motivation
- Improves arousal - lessens fatigue
- Decreases restlessness
- Improves attention
- Improves behavior
- Improves impulse control
- Improves impulse control
Exercise Prepares the Mind

(Continued)

• Helps Mood and Anxiety Regulation
• Combats Depression
• Reverses “Learned Helplessness”
• Improves Self-Esteem
• Combats Stress Hormones
• Combats Toxic Effects of Stress Hormones

Fitness Changes Academics and Behavior

Anthony Elementary in Leavenworth, Kansas

1. There was a 1300+% increase in those passing the Presidential Fitness Test.
2. The school went from 10th in Reading and 9th in Math (in a district with 10 elementary schools) to 2nd in Reading and 1st in Math.
3. Office referrals for discipline were reduced from 438 to 18.

Reference: Schibsted, E. Educational Institutions Step into the Ring to Fight for Fitness: Schools battle an epidemic of childhood obesity -- a problem they helped create.

Edutopia (Dec/Jan 2006). Available at: http://www.edutopia.org/fighting-fitness

Anthony Elementary increased PE and PA from 1 to 5 days a week, revamped their school lunch program, and added vitamins to the daily menu.

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Here Comes A Big Take Away Moment!

Reference: PE4Life, Year Two Project Update, Grades 4 and 5, Fall 2006 - Spring 2007

Woodland Elementary

Kansas City Public School District #33

- 60%

- 51%

Decreased Discipline Incidents - Yearly Averages

Drawn with PE Association with Disciplinary Outcomes
Kids that are physically active have enhanced brain activity that prepares them for learning.

Brains after sitting quietly for 20 minutes.

Researchers compliments of Dr. Chuck Hillman University of Illinois

Average composite of 20 student brains taking the same test after a 20 minute walk.

Research we have used?

We collected data!
Sample Size (# students)

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<th>Year</th>
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<th>2008</th>
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<td>Sample Size (PM) Far</td>
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<td>167</td>
<td>167</td>
<td>177</td>
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</table>

No students permitted to opt-out of LRPE in 2007.

** 2011 data also includes students from Naperville North High School.

** Reading Readiness Grade Level evaluated with Nelson-Denny

** Algebra Readiness Test

** Math skills evaluated using the Algebra Readiness Test
What does Learning Readiness PE (LRPE) look like?

- Based on Fitness
- Cardiovascular Intensity
- Cross Lateral Activities
- Core Strength
- Team Building
- Team Building
- Traditional Team Sports (small sized)
- Gymnastics
- Balance and Intensity
- Cardiopulmonary Base on Fitness

Can this be replicated in another district?
School District
West Aurora

Grade-level Reading Scores Increased for Participants in LRP

Data represents 28 students.
-14 participated in LRP
-14 participated in non-LRP

Those with the lowest outcomes on all tests were randomized and evenly divided into:
- Behavior
- Level of improvement between fall and winter
- Gates reading test
- Algebra test

Graders from 2011-2012 school year were evaluated on:

- 9th graders from 2011-2012 school year were evaluated on:

Oak Park River Forest High School
2008 Data
Data set 1 represents 29 students - 14 participated in LRPE - 15 participated in non-LRPE (i.e. regular PE

Data set 2 represents 27 students - 13 participated in LRPE - 14 participated in non-LRPE (i.e. regular PE

Grade is based on classroom performance

Student Grades

2022, 1st Quarter, 7th Hour English

Grade set 1 represents 26 students

Grade set 2 represents 26 students

Grades at West Aurora High School Performance Differences Among 10th

Grade set 1 represents 27 students

Grade set 2 represents 27 students

Grades at West Aurora High School Performance Differences Among 10th
Elissa Bassler

Enhanced P.E. Strategic Plan

Overview of Assistive Resources:

Sandy Noel

Physical Activity Break
Background

In 2011, Illinois was awarded a small grant to implement an evidence-based public health practice from The Guide to Community Preventive Services (the "Community Guide").
Evidence-Based Public Health

Community Guide

Task Force Recommendations & Findings

Promoting Physical Activity: Behavioral and Social Approaches

Individually-adapted health behavior change programs Recommended

Social support interventions in community settings Recommended

Enhanced P.E. Task Force

Enhanced school based physical education Recommended

College-based physical education and health education Insufficient Evidence

Family-based social support Insufficient Evidence

Classroom-based health education to reduce TV viewing and video game playing

College-based physical education and health education

Social Support Information in Community Settings

Individually-adapted health behavior change programs

Promoting Physical Activity: Behavioral and Social Approaches

Evidence-Based Public Health

Outcome: Strategic Plan

Strategic Plan Development

Meetings: April, May, and Aug. 2011

Partners: (partial list)

- Director, IDPH (co-chair)
- Superintendent of Schools – ISBE (co-chair)
- Illinois Association of Health, Physical Education, Recreation, and Dance
- ISBE, Student Advisory Board members
- American Heart Association
- University of Illinois, Department of Kinesiology and Community Health
- American Association of Physical Educators
- Director IDPH (co-chair)
- YMCA Statewide Alliance
- Northern Illinois Public Health Consortium to Lower Obesity in Chicago
- Consortium on Childhood Obesity
- American Heart Association
- ISBE, Student Advisory Board members
- ISBE, Department of Schools – ISBE (co-chair)
- Director IDPH (co-chair)

Tactics:

- Leadership development, professional development, measurement local decision-makers
- Involving local decision-makers
- Leadership development, professional development, measurement

Approach: Cultural Shift
Strategic Plan

VISION:
All Illinois K-12 schools students will participate in daily, high-quality physical education in order to promote academic achievement and realize the lifetime benefits of fitness.

Plan is available at: www.isbe.state.il.us/EPESP

Strategic Plan

PARTNERS
(local decision-makers)
- School Boards
- Superintendents
- Principals

GOALS
- Leadership development
- Professional development
- Measurement
- Infrastructures & leveraging resources
- Leveraging resources & infrastructure
- Leveraging resources & measurement
- Professional development
- Leadership development

Strategic Plan

WWW.ISSBE.ILLINOIS/EPESP

Lifet ime benefits of fitness. promote academic achievement and realize the education in order to daily high-quality physical students will participate in illinois K-12 schools
Thank you!
Public Health System

Coordination Council and the Implementation State Health Improvement Plan (SHIP)
Local, state and federal level funding sources at the
Identity public and private
Implementation specific projects
Mechanism for action
Implementation steps with
Develop detailed
New initiatives
Collaborative action

Serve as a forum for
Coordinate existing and
Collaborative action

Advocate for the
Promote public awareness of

Implement specific projects
Identify public and private

No authority to direct any
Implementation of SHIP
Regard the status of the
Develop an annual report

System to coordinate the implementation of the SHIP
Voluntary sector stakeholders and participants in the public health
Coordinating efforts and engagement of the public/private and
SHIP ICC Change per legislation:

Voluntary partners.
Comprised of active public, private and
High-functioning public health system
Being for all people in Illinois through a
Optimal physical, mental and social well-

SHIP Vision
Committees
Establish Goals, Timelines, and...
Public Act 97-1102

Purpose #1

• “Promote and recommend enhanced physical education programs that can be integrated with a broader wellness strategy and health curriculum in elementary and secondary schools in this State, including

– educating and promoting leadership among school district and school officials;

– developing and utilizing metrics to assess the impact of enhanced physical education;

– promoting training and professional development in enhanced physical education for teachers and other school and community stakeholders;

– identifying and seeking local, State, and national resources to support enhanced physical education;

– and such other strategies as may be identified by the task force.”

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– Output: Report must be filed with GA and Governor by August 31, 2013

Public Act 97-1102
Enhance P.E. Task Force

Notes: Promoting Enhanced PE
Notes: Revising Learning Standards