

The Effects of The Physical Best Implementation on Activity Levels in an Elementary Physical Education Classroom -NDSHAPE Grant

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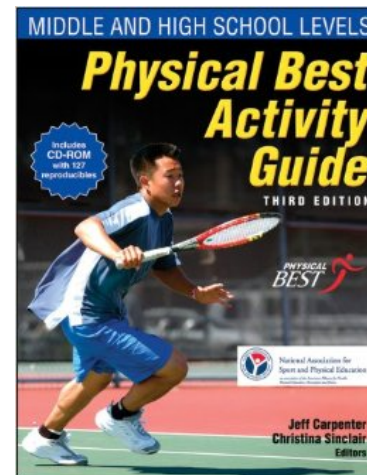
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Physical Best...What is it?

- ▶ The Physical Best curriculum was launched in 1987 with a mission of fostering a healthier youth by providing a quality resource and professional development for educators. It is a product of SHAPE America (the governing body of Physical Education in the USA).
- ▶ Books include a teachers guide, Fitnessgram Test guide, elementary activities guide, and middle school/high school activity guide.
- ▶ The PB Curriculum is based on the 5 Components of Fitness



NDSHAPE Grant

- ▶ NDSHAPE accepted our application for 23 of the **SODIAL Smart Wrist Band Sports Fitness Activity Tracker Pedometer Bracelet Watches**. These watches were used for data collection at Eagles Elementary in Fargo and then retained by the school for daily physical education use afterward.
- ▶ Physical Education has two main objectives in 2018; to get students more physically active and to teach them health-related fitness concepts in the hopes of motivating them to be physically active outside of school and throughout their entire life.
- ▶ With the time spent focusing on the fitness-related concepts, was the amount of activity they get during class being affected positively or negatively by the infusion of the curriculum?

NDSHAPE Grant Study

- ▶ The objective of the study was to see what effect the infusion of the Physical Best curriculum has on the total number of steps the students take during class.
- ▶ Students record the number of steps they take for a week during class with the traditional curriculum and then again for a week with the Physical Best curriculum infused into the fitness component of the traditional curriculum. Parental consent and child assent forms will be attained upon IRB approval.
- ▶ N=29 M=23 F=34

Results - Over All

N=92

Physical Best

Average Steps/day:
1528.0 ± 576.8 steps

Average Time in
Zone/day:
18.5 ± 5.9 minutes

Normal Class

▶ Average Steps/day:
1942.2 ± 724.5 steps
% difference from PB:
+27.1%

▶ Average Time in
Zone/day:
23.5 ± 5.5 minutes
% difference from PB:
+27.0%

Results - Gender

M=50 F=42

Males Overall

steps/day: TZ/day:

1555.31 18.54

± ±

684.88 6.77

steps/day: TZ/day:

1941.03 24.08

± ±

702.76 5.63

% change % change

24.80 29.86

Females Overall

steps/day: TZ/day:

1500.78 18.54

± ±

550.55 6.19

steps/day: TZ/day:

1897.13 22.69

± ±

796.32 5.80

% change % change

26.41 22.43

Results - Grade 5th

N=37

Physical Best

Average Steps/day:
1437.3 ± 536.5 steps

Average Time in
Zone/day:
18.2 ± 6.9 minutes

▶ Normal Class

▶ Average Steps/day:
1922.1 ± 681.5 steps
% difference from **PB**:

+33.7%

▶ Average Time in Zone/day:
24.3 ± 5.4 minutes
% difference from **PB**:

+33.8%

Results - Grade 5th by Gender

N=21

5th Grade Boys

steps/day: TZ/day:

1392.73 18.55

± ±

523.66 6.95

steps/day: TZ/day:

1918.02 25.24

± ±

713.39 4.99

% change % change

37.72 36.09

N=16

5th Grade Girls

steps/day: TZ/day:

1494.83 17.69

± ±

552.87 6.97

steps/day: TZ/day:

1927.57 23.11

± ±

644.71 5.79

% change % change

28.95 30.64

Results - Grade 4th

N=40

Physical Best

Average Steps/day:
1629.8 ± 709.5 steps

Average Time in
Zone/day:
19.6 ± 5.7 minutes

Normal Class

Average Steps/day:
1973.3 ± 836.9 steps

% difference from **PB**:

+21.1 %

Average Time in Zone/day:
23.7 ± 5.3 minutes

% difference from **PB**:

Results - Grade 4th by Gender

N=21

4th Grade Boys

steps/day: TZ/day:

1691.82 19.26

± ±

821.75 6.14

steps/day: TZ/day:

1967.45 23.63

± ±

712.35 5.86

% change % change

16.29 22.70

N=19

4th Grade Girls

steps/day: TZ/day:

1562.39 19.89

± ±

562.39 5.32

steps/day: TZ/day:

1979.98 23.69

± ±

967.32 4.61

% change % change

26.73 19.05

Results - Grade 3rd

N=16

Physical Best

Average Steps/day:
1516.2 ± 562.6 steps

Average Time in
Zone/day:
16.9 ± 6.8 minutes

Normal Class

Average Steps/day:
1823.1 ± 679.3 steps
% difference from **PB**:

+19.5 %

Average Time in Zone/day:
20.4 ± 6.8 minutes
% difference from **PB**:

+21.0 %

Results - Grade 3rd by Gender

N=9

3rd Grade Boys

steps/day: TZ/day:

1625.57 16.61

± ±

589.88 7.76

steps/day: TZ/day:

2007.42 21.54

± ±

746.76 6.21

% change % change

23.49 29.70

N=7

3rd Grade Girls

steps/day: TZ/day:

1417.33 17.14

± ±

523.42 5.76

steps/day: TZ/day:

1601.90 19.05

± ±

524.42 7.39

% change % change

13.02 11.13

DISCUSSION

- ▶ Physical best offers valuable information about health-related components of fitness and encourages students be physical outside the classroom. However, it is important that its implementation does not impact activity time in class as dramatically as it did here.
- ▶ Most impacted by PB: 5th grade boys Least impacted by PB: 3rd grade girls
- ▶ In other words...the more active they are, the more negative impact it has.
- ▶ Future research should focus on effects of long term implementation and learned effect.
- ▶ Collection of data outside of school, does PB increase out of class physical activity, despite loss of activity during class time.