

Physical Education as a Valued and Essential
Subject in the High School Curriculum:
Should We Wavie?

By

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Introduction

What does a Quality Physical Education program look like?

- supports an active, non-threatening, progressive, age-appropriate, and challenging environment
- fosters individual physical, cognitive, emotional, and social growth
- cultivates an enjoyment for fitness and sports
- teaches health-related behaviors
- ultimately promotes health and disease prevention

Unfortunately, as a result of educational budgetary cuts, federal laws (NCLB, ESEA, etc.), and ultimately a lack of true understanding of what a quality PE program provides; many PE classes are being reduced or completely eliminated at alarming rates.

This too, has been proposed at DHS, so I will present information and research that ultimately defends the position for not cutting back the PE graduation requirement at DHS, as well as submit the Required Elective PE Credit Wavier Proposal.

National & State Recommendations/Mandates for PE & PA

Just as in every other subject area offered in high school, (Math, Science, English, Social Studies, etc.), PE too has a national association which provides guidance on best practices and standards for both professionals and students in that content area; makes recommendations as to frequency and quantity of time; and is needed for a student to achieve necessary outcomes in physical education.

NASPE recommends:

All high school students receive 225 minutes of PE per week for the entire school year, for each and every year.

American Heart Association, American Academy of Pediatrics, & Centers for Disease Control and Prevention all recommend:
Daily Physical Education for all in grades K-12

("The New PE", 2004)

U.S. Department of Health and Human Services:

Healthy People 2020 report:

- Objective PA-4 the goal is to "Increase the proportion of the Nation's public and private schools that require daily physical education for all students" (HP 2020, 2011)
- Objective PA-5 reads, "Increase the proportion of adolescents who participate in daily school physical education" (HP 2020, 2011)

Michigan Merit Curriculum High School Graduation requirement:

- 1 credit of Physical Education/Health; which is recommended to be split evenly between PE and Health
- However, it doesn't stop there, the MI Department of Education clearly states that "Of course, individual districts may choose to exceed the minimum requirement when it is determined to be in the best interest of their students"

National & State Recommendations/Mandates for PE

State	HS PE Requirement for Graduation	2011 State-By-State Obesity Ranking (1st = "Fattest") * tied			
Alabama ~	1.0 credit	2nd*	Montana +	2 semesters	44th
Alaska ~	1.0 credit of PE/Health	30th*	Nebraska -	No State Requirement	24th
Arizona ~	No State Mandate^	35th*	Nevada +	2.0 credits	39th
Arkansas -	0.5 credit	9th	New Hampshire +	1.0 credit	33rd*
California +	2 years	40th	New Jersey +	3.75 credits/year	43rd
Colorado ~	No State Mandate^	51st	New Mexico +	1.0 credit	33rd*
Connecticut +	1.0 credit	49th	New York +	2.0 credits	41st
Delaware ~	1.0 credit	21st*	North Carolina -	1.0 credit "healthy living"= PE & HE	14th
District of Columbia +	2 semesters	50th	North Dakota -	.5 credit	21st*
Florida +	1.0 credit	29th	Ohio -	.5 credit	13th
Georgia ~	2 classes	17th*	Oklahoma -	State Does Not Specify	7th
Hawaii +	1.0 credit	47th	Oregon +	1.0 credit	35th*
Idaho ~	No State Mandate^	32nd	Pennsylvania -	No State Law	19th
Illinois ~	daily	23rd	Rhode Island ~	No State Mandate^	42nd
Indiana ~	2 semesters	15th	South Carolina ~	1.0 credit	8th
Iowa ~	2.0 credits	20th	South Dakota -	.5 credit	17th*
Kansas ~	1.0 credit	16th	Tennessee -	.5 credit	4th
Kentucky -	.5 credit	6th	Texas ~	1.0 credit	12th
Louisiana ~	1.5 credits	5th	Utah +	1.5 credits	46th
Maine +	1.0 credit	27th	Vermont +	1.5 credits	45th
Maryland ~	.5 credit	26th	Virginia +	2.0 credits	30th*
Massachusetts ~	No State Law^	48th	Washington +	2.0 credits	28th
Michigan -	1.0 rec. split evenly between PE & Health	10th	West Virginia ~	1.0 credit	3rd
Minnesota ~	No State Requirement	38th	Wisconsin ~	1.5 credits	25th
Mississippi -	.5 credit	1st	Wyoming ~	No State Law^	35th*
Missouri ~	1.0 credit	11th	(+)	(-)	(~)
			17 states**	12 states**	R/G = 9 states G/R = 13 states

** 29 out of 50 states and the District of Columbia adhere to the correlation that the more (at least 1.0 credit) PE required by a state, the less obese the adult population of that state is, as well as on the flip side, that the less (less than 1.0 credit) PE required by the state, the more obese the adult population of that state is.

1.0 credit (2 terms) or more of Physical Education Required for HS Graduation = GREEN
 Less than 1.0 credit of Physical Education Required for HS Graduation= RED

1st-25th (Highest Obesity Rates in US) = RED
 26th-51st (Lowest Obesity Rates in US) = GREEN

(+) **Both Green** = Possible correlation that the more HS Phys Ed required, the lower the Obesity Rates in that state
 (~) **Red/Green** = Less than 1.0 credit (2 terms) of PE required by that state, however are not in the top 25 states in obesity rates. Note: 7 of the 8 R/G have no state mandate/law/requirement for physical education, however this does not mean the schools/districts do not have a set PE requirement that could in fact be more than 1.0 credit (2 terms)

(^) **"No State Mandate/Law/Requirement"** Does NOT Mean That Schools Do Not Have a Local or District PE Requirement... They Could In Fact Require Above and Beyond 1.0 credit/2 terms of PE

(-) **Both Red** = Possible correlation that the less HS Phys Ed required, the higher the Obesity Rates in that state

(~) **Green/Red** = 1.0 credit (2 terms) or more, of PE is required by that state however are in the top 25 states in obesity rate.

Note: QUALITY OF PHYSICAL EDUCATION COURSES ARE NOT TAKEN INTO ACCOUNT, HENCE MORE CREDITS/TERMS OF POOR QUALITY PE WILL NOT NECESSARILY YIELD BETTER COMMUNITY HEALTH.

NOTE: Nearly 60% (30/50 & the District of Columbia) of states in the US require a minimum of 1.0 credit of Physical Education for high school graduation

Local High Schools That Exceed PE State Minimums

School	School PE Requirement	Beyond State of MI PE Req.
Canton High School	1 credit	+ .5 credit
Huron High School	1 credit	+ .5 credit
Ida High School	1 credit	+ .5 credit
Manchester High School	1 credit	+ .5 credit
Pioneer High School	1 credit	+ .5 credit
Plymouth High School	1 credit	+ .5 credit
Salem High School	1 credit	+ .5 credit
Saline High School	1 credit	+ .5 credit
Skyline High School	1 credit	+ .5 credit
<u>Whitmore Lake High School</u>	1 credit	+ .5 credit

Note: Saline High School was named 222nd best high school in America; they must be doing something right...

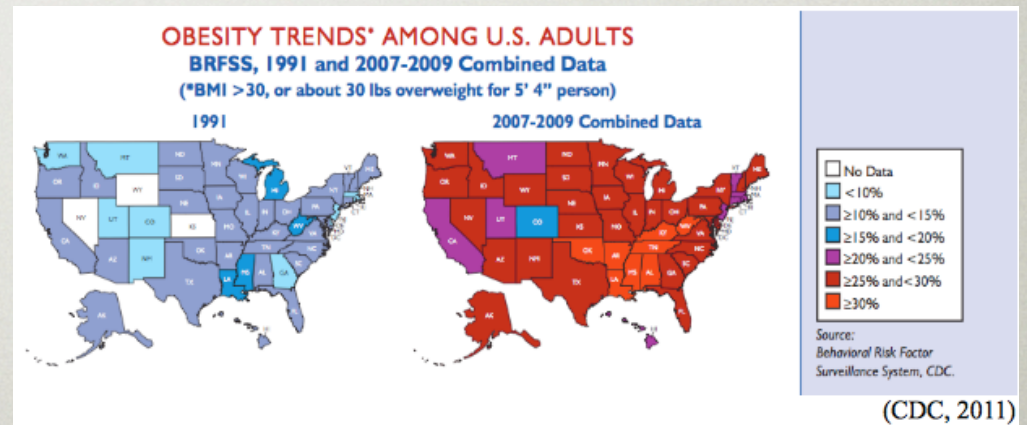
<http://www.thedailybeast.com/newsweek/features/2011/americas-best-high-schools.html>

A quick examination of some local high schools within close proximity with similar demographics, that exceed the Physical Education State of Michigan minimum requirements.

Research on the Correlation of Physical Education and Physical Activity on Obesity Trends

"The physical and emotional health of an entire generation and the economic health and security of our nation is at stake. This isn't the kind of problem that can be solved overnight, but with everyone working together, it can be solved. So, let's move." –Michelle Obama, (Holecko, 2011)

- From 1976-1980 to 2007-2008, the prevalence of obesity among children ages 12-19 has more than tripled! (CDC, 2011)
- Obesity rates for adolescents in the U.S. has gone from 1 in 20 thirty years ago to a shocking 1 in 6 today! (Isaacs & Swartz, 2010)
- Due to national childhood obesity crisis, the current generation is likely to face a shorter lifespan than that of their parents (McNulty & Prosser, 2011)
- 35% of Michigander's are classified as Overweight (BMI of 25.0-29.9) and 31.7% are Obese (BMI of 30.0 and up) (nccd.cdc.gov / BRFSS)
- With current trends experts predict that nearly 75% of Americans will be overweight & 41% of them obese by 2015 (Douglas, 2010)



"molding healthy behaviors at an early age is easier than changing established adult lifestyles" (States Public...2004)

Research on the Correlation of Physical Education and Physical Activity on Academic Performance

"Physical fitness is not only one of the most important keys to a healthy body, it is the basis of dynamic and creative intellectual activity." --John F. Kennedy (Buzzle.com, 2011)

Studies Supporting a Biological link of PA & Increased Cognition

- "The brain uses 20-25% of the body's oxygen & 25% of the body's glucose...a decrement in either of these nutrients can impair cognitive functioning. Since the cardiovascular system transports oxygen & glucose to the brain, any improvement in aerobic fitness should bolster their delivery and lead to improved brain function" (Sibley & LeMasurier, 2008)
- Researchers have "coaxed the human brain into growing new nerve cells...simply by putting subjects on a 3-month aerobic workout regimen" (Carmichael, 2007)
- In the Gage & Small study "new neurons created by exercise cropped up in only one place: the dentate gyrus of the hippocampus, an area that controls learning and memory" (Carmichael, 2007)
- According to psychologist Arthur Kramer's research, exercise increases the size of the frontal lobes which are "the seat of 'executive functioning'--a type of higher thought that entails decision-making, multitasking, and planning" (Carmichael, 2007)
 - This study has particular significance for individuals under the age of 20...

Studies Supporting a link between PA & Academic Performance

- "Investigators in Illinois found that students' total fitness, as measured by passing all 5 components of the *FitnessGram*, positively correlated with academic achievement, measured by the standardized Illinois State Achievement Test, particularly Mathematics and Science" (Chomitz, 2009)
- In the 2004 study done by the California Department of Education, results indicated that students who did better on Stanford Achievement Test, also were more physically fit as determined by *FitnessGram* scores, than their peers who didn't score as well (Vail, 2006)
- A study in California analyzed the fitness testing results for more than 800,000 students, which revealed a significant positive correlation between physical fitness achievement and achievement in reading and math on state achievement tests (Trost & van der Mars, 2010)

All of this research clearly shows a consistent positive relationship between overall fitness and academic achievement, as well as the more a person challenges and improves the fitness of his/her body, the effects go above and beyond the physical gains.

Effect that No Child Left Behind Law has had on Physical Education

Sounded like a great idea, however, the intent versus the twists & turns that resulted were unforeseen:

- Teaching to the test vs. authentic deeper understanding instruction & practical application
- Cutting / eliminating elective areas, such as PE, Art, Music, etc.
- Losing students who can't fit the mold; i.e. pass the tests
- Unethical behavior from school officials; as in the case of Atlanta Public Schools

Research shows that PE & academic performance can & do go hand-in-hand; therefore school officials should be careful because NCLB could ultimately be depriving students of an element that they need in order to be successful.

Physical Education is an Academic Subject

In light of NCLB Law, you may ask, what truly defines a “core academic subject”?

1. **Required subject**- 45 states mandate that students must take PE in HS
2. **Standards**- NASPE; most state dept. of ed. websites include PE when listing standards for academic subjects
3. **Course of study**- many states have state board of ed. approval on course of study, curriculum framework, etc.
4. **Textbooks/instructional resources**- many states have approved & recommended lists of PE textbooks & other materials
5. **Student assessment**- Multiple student assessment tools available i.e. *FitnessGram*)
6. **Grades**- 98% of schools that require PE give grades
7. **Teacher preparation program accreditation**- NCATE reviews PE teacher education programs, as part of accreditation for teacher prep programs
8. **Teacher certification**- 46 states require all who teach PE in HS be certified or licensed

(NASPE, 2010)

So, based on those classifications, PE fulfills them all.

Research on the Correlation of Physical Education and Physical Activity on Social & Emotional Benefits

"Movement is a medicine for creating change in a person's physical, emotional, and mental states."
~Carol Welch (The Quote Garden, 2011)

Benefits...

- Positive social interactions & support
- Social connectedness/Peer bonding
- Sportsmanship and teamwork
- Social & emotional well-being
- Positive self-esteem/self-confidence
- Character development
- Increased life satisfaction
- Improvements in depressed moods, anxiety, & stress

Studies Supporting link...

- Studies show interactions in a physical environment promotes social-emotional learning & growth, where adolescents learn valuable communication skills, such as negotiation, cooperation, sharing, & problem solving; while at the same time encouraging perseverance & self-control (Ramstetter et al, 2010)
- PA has been shown to “increase serotonin, endorphins, & dopamine levels in the brain...these neurotransmitters play a crucial role in the regulation of a variety of cognitive processes & mood states” (Sibley & LeMasurier, 2008)
- The Brown & Blanton study revealed that “sport participation protected against suicidal behavior” (3rd leading cause of death among adolescents, “in both males & females” (Taliaferro et al, 2008)

The health of our youth goes above and beyond BMI & the absence of disease and that is why the World Health Organization defines health as, “state of complete physical, mental, & social well-being” (Eime et al, 2010)

Comprehensive Obesity-Prevention Initiatives the Have Attracted National Attention

Effective Programs

- Child & Adolescent Trial for Cardiovascular Health (CATCH)
- Physical Activity and Teenage Health (PATH)
- Promoting Lifestyle Activity in Youth (PLAY)
- Sports, Play, and Active Recreation for Kids (SPARK)

Research strongly indicates a significant association between enrollment in PE classes & the health-related behaviors of high school students.

- Fulfilled recommended levels of daily physical activity
- Lower daily consumption of soda
- Higher daily consumption of fruits & vegetables
- Less daily TV viewing

(Tassitano et al, 2010)

Commitment to high-quality, health-related school PE programs for all students, (rather than cutting), is an important strategy for having a positive impact on the health of our youth.

Parental Concerns and Views about the Loss of Physical Education

- “According to a recent Harvard Health Forum survey 91% of parents polled feel that there should be more PE in school” (Kendrick, 2011)
- “More than 75% of parents believed that school boards should not cut or eliminate PE programs”
- “Two in three parents (67%) say they would be willing to pay higher taxes to provide Physical and Nutrition Education classes”
- Given three choices and asked which one they think is most important for their children, the largest number of parents with children living in their household who are younger than 18 think optimal health is most important (44%), with having friends/getting along with peers (20%), and academic success (16%) well behind

(NASPE, 2003)

Researched-based evidence and parent support justify the need for more quality PE versus less

Conclusion

“Research indicates that the rate of participation in physical activity peaks between the ages of 10 and 13 and then declines sharply” (Eklund & Bianco, 2000)

Therefore, participation in PE during the high school years may very well lay the foundation for an active lifestyle that will provide health benefits throughout ones entire life

Research of the past & present continues to show the physical, cognitive, emotional, & social benefits of PE & PA

If we are a district that does what is best for our students, we would not cut or eliminate such a crucial part of their education. In fact, the research and best practices would indicate that the amount of physical education time at Dexter High School should actually be increased rather than decreased, due to the fact that the requirements are currently only 39% of what is recommended and would be at only 14% of what is recommended if the required physical education elective is revoked.

We can choose to be part of the solution or contributors to the problem...

Dexter High School Required Elective Physical Education Credit Wavier Proposal

"Of all the subject areas taught in school, Physical Education is the only subject which, by the very nature of its content, has the potential to affect how a person will feel every moment of every day for the rest of his or her life." --Allen Russell

Reason for Proposal

- At a DHS department chair meeting in the Spring, it was shared that administration was considering the elimination of one of the half credits of PE currently required for graduation
 - Why?
 - *Some* students have difficulty fitting the required elective PE credit in their highly academic schedule
 - Would align with the State of Michigan graduation requirements
- There are a very few students that take such a highly academic schedule, i.e. 4 years of World Language, 4 years of Music, and at least 3 AP classes, that s(he) has difficulty fitting the required elective PE credit in
 - (Only 12 out of 285 students, approximately 4%, of the 2011 senior class)
- Michigan Dept. of Ed. clearly encourages individual school districts to require more than the 1 credit of PE/Health, "if it is determined to be in the best interest of their students", which research continues to support fully

Dexter High School Required Elective Physical Education Credit Wavier Proposal

You should not sacrifice the good of the whole, (extreme majority) for just a few

Rationale Behind Proposal

- DHS graduation requirement is already well below NASPE recommendation of 225 minutes of PE per week for the entire school year, every year
 - Currently, (2010-11 school year), 2 PE classes & 1 Health class is required for graduation
 - Which is less than 39% of what is recommended by NASPE
 - With the potential change to only a half credit of PE required, (even when we change back to semesters), DHS would be at less than 14% of what is recommended by state and national officials
 - Which would be a 25% decrease in an already extremely low requirement for PE
- Most students have no problem fitting in the required elective PE credit
 - In fact, the DHS 2011 senior class had 124 out of 285, (nearly 45%), of its students on “early release” or “late arrival”, (this does not include the number of students who took multiple electives in areas that are not required for graduation), which soundly supports that the majority of students have more than enough room, if not too much...

Dexter High School Required Elective Physical Education Credit Wavier Proposal

Rationale Behind Proposal

Typical
Student

*Student fulfilling MMC graduation requirements in a 6 hour Semester Schedule**

Hour	9th grade	10th grade	11th grade	12th grade
1st	Math	Math	Math	Math
2nd	English	English	English	English
3rd	Science	Science	Science	Elective/Elective
4th	Social Studies	Social Studies	Social Studies	Elective/Elective
5th	PE(LFS)/Health	PE Elective/Elective	VPAA	Elective/Elective
6th	World Language	World Language	Elective/Elective	Elective/Elective

Allows for 11 semester elective choices; or 5 year long electives and 1 semester elective; or any combination*

Highly
Academic
Student

*Student fulfilling MMC graduation requirements + 4 years of World Language, 4 years of Music, & 4 APs**

Hour	9th grade	10th grade	11th grade	12th grade
1st	Math	Math	Math	AP- Calculus
2nd	English	English	AP- Eng Lang	AP- English Lit
3rd	Science	Science	Science	PE(LFS)/Health
4th	Social Studies	Social Studies	AP-US Govt	PE Elective/Economics
5th	Music	Music	Music	VPAA(Music)
6th	World Language	World Language	World Language	World Language

Note: 3 out of the 4 Music credits, Year 3 & 4 of World Language, & Economics are ELECTIVES

* These charts do not include the zero hour option that is projected to also be available in the 2012-13 school year

Dexter High School Required Elective Physical Education Credit Wavier Proposal

Description of Proposal

- Who would be eligible for wavier?
 - students who are taking 4 years of World Language, 4 years of Music, and at least 3 AP classes (approximately 4% of students) while at DHS
- How would the waiver be applied to the transcript?
 - after a student completes & passes 4 years of World Language, 4 years of Music, and at least 3 AP courses; a meeting with his/her counselor will result the waiver being applied
 - assuming that the student didn't choose another option for the PE elective, i.e. summer school or test-out
- All other students would take the second required elective of PE as usual
 - Cutting a worthy second half credit of PE, which is already way below what is recommended, for those who clearly have room and would gain valuable knowledge & experiences seems unreasonable & unjust

Dexter High School Required Elective Physical Education Credit Wavier Proposal

Implementation of Proposal

- After having the proposal agreed upon by administration and the school board, it would be suggested that it be implemented for the 2012-13 school year, (transition to semesters)
 - Trimesters = 15 credits per year
 - Semesters = 14 credits per year, if zero hour option is chosen
- Students interested:
 - Complete and keep on file a Personal Curriculum that lists their required PE Elective Waiver intentions
 - Verify completion of requirements for waiver to be applied with counselor at senior audit meeting

Note: "Results revealed that individuals who participated in high school physical education courses in states that required teacher certification, had established state curriculum standards, and required physical education credits for graduation, reported higher levels of physical activity as young adults than individuals who received waivers for courses." (Mears, 2010, p. 90)

Questions

