



# A pilot evaluation of Move it Move it! A before school incentive-based physical activity program at the Integrated Arts Academy (IAA) in Burlington, VT.



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## Move it Move it!

- 3 days a week students/families & staff are given the opportunity to run or walk before school (7:45-8:10AM)
- School created a "track" around the school playground. 12 laps around the track = 1 mile.
- Incentives: 1 mile = pencil; 5 miles = sports bracelet; 10 miles = water bottle; 25 miles = T shirt; 50 miles = ball & pedometer; 100 miles = board recognition. Benchmarks are celebrated on Fridays in school town hall meetings.
- Created to encourage physical activity, prepare students for learning and build community connections in a historically low-performing school.
- 359 students & 90 adults have participated in Move it Move it, moving 3,234 miles in 2013-2104.



## The Need for Before School Physical Activity

- Less than 50% of American youth are getting recommended levels of daily physical activity (PA).
- Physical education (PE) cannot be exclusive outlet for physical activity, on average youth engaging in 10-20 minutes of moderate to vigorous activity per PE class.
- Evidence linking physical activity to academic success, school engagement, and social/emotional health.
- Vermont's recently revised education quality standards encourage schools to offer 30 mins of PA outside of PE.

## Study Aims and Design

- 1) Assess the impact of Move it Move it on:
  - a) academic achievement and school engagement
  - b) social relationships
  - c) physical and socio-emotional health

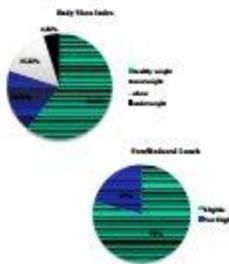
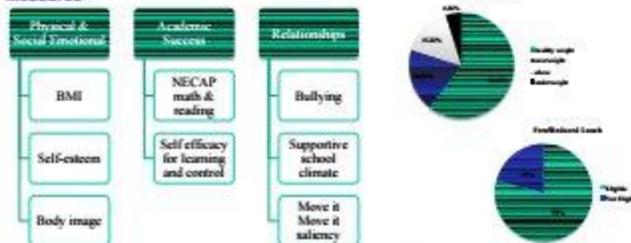
## Mixed methods evaluation:

- A) Quantitative self administered surveys of students, 3-5th (N=129)
- B) Semi-structured interviews with IAA teachers & staff (N=5) & IAA implementers (N=3)

## Sample Characteristics (N=129)

- ◊ 50% female
- ◊ 33% speak a language other than English at home
- ◊ 97% of respondents have participated in Move it Move it at least once.
- ◊ 21 miles = average number of miles a student has run/walked in past 2 yrs.

## Measures



## Move it Move it Participation

- Students that reported benefiting the most from Move it Move it were also more likely to have run/walked more miles than the average student.

I have a better day after Move it Move it

Yes	No	Maybe	I don't know
38.9*	9.9	14.2	12.8

\*Mean number of move it Move it miles

\*Significantly different based on Kruskal Wallis test

I can control my body after Move it Move it

Yes	No	Maybe	I don't know
25.4*	13	14.7	7.4

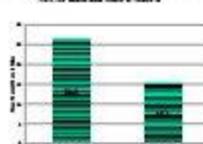
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## Relationship between Move it Move it Engagement and Academics

- Miles run/walked is positively correlated with NECAP math scores ( $r=0.21$ ,  $p$ -value 0.02).
- On average, each mile run is associated with a 0.07 unit increase in math testing scores.

NECAP math and Move it Move it



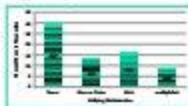
## NECAP math scores

	$\beta$	S.E.	$p$ -value
Miles	0.07	0.03	0.03

Adjusted for grade and gender  
 $R=12.86$

## Move it Move it and Bullying victimization

- Move it Move it is significantly negatively correlated with victimization ( $r=-0.18$ ,  $p$ -value, 0.04).



## The Role of Incentives:

"The tangible incentives are good. The intangible is even better. The dancing, the getting to go for ice-cream with an adult of their choice during the school day. Getting the recognition...kids get even more excited about" (social worker)

"The incentives, we load them up in the beginning to get buy in, and as they get hooked they don't need incentive quite so often. I think the incentives are great in that kids get recognized at town meeting."

## Implications

- As Move it Move it is a low cost community-based intervention, replication efforts are warranted given these promising results.
- Integrated data collection efforts should be prioritized to understand links between academic, behavioral and social health.
- Extrinsic incentives enhance initiation and intrinsic rewards support maintenance.

## Key Themes from Interviews:

### Supports Academic Learning

"I have seen better abilities to focus after (students) attending move it move it!" (classroom teacher)

"For me what I really notice is the impact on certain students. So yes it does impact my classroom in that students, especially those that I know that really need that physical [outlet] and thrive on it in the mornings when they are able to do move it move it and especially the mornings when they're actually trying" (classroom teacher).

### Community Building:

"I just think that it's phenomenal that we have so many adults in this building that support the program. When the kids see the teachers engaged in Move it Move it! and when a teacher gets called (at community meeting)- having done their first mile- the kids get so excited and I think that anything we ask children to do, we need to be comfortable doing ourselves" (classroom teacher)

"The cultural piece is really important especially at IAA- a lot of the kids who do Move it Move it are new Americans. It's an immediate sense of community for these kiddos. For example one family from Somalia- all of his daughters run every time- in their skirts and head dresses. He so proud of them. That is really interesting. These girls are often leading the pack, which is really cool." (school staff)