

NACDD School Health Open Forum
***Using Physical Activity in the Classroom to Improve Academic and
Other Behaviors***
January 24, 2018

During the Open Forum, David Wilkie, a Physical Education and Health teacher at Boiling Springs Elementary School in Spartanburg, SC, and two of his fellow teachers, Kimberly Terry and Staci Dodgens, shared their work around promoting and implementing physical activity (PA) in the classroom, including integration of the *kinesthetic classroom* model. Mr. Wilkie and colleagues shared how Boiling Springs Elementary School got started with PA in the classroom, what types of PA in the classroom he and other teachers at his school have implemented, and how their efforts have grown over the last several years. Mr. Wilkie and his colleagues also shared about the academic and self-regulation changes they have observed in their students as the school has consistently focused on incorporating PA in the classroom.

Presenter Contact Information

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Getting started

- Went to a state conference and were really inspired about the kinesthetic classroom approach. Visited another classroom that was implementing kinesthetic classroom.
- Mr. Wilkie was then asked to start teaching academics again after years teaching PE/health. For academic year 2016-17 he taught academics in a kinesthetic classroom.
- Couple years ago, Donors Choose did fully funded grants. Boiling Springs received five \$1000 grants, which allowed them to get started.
- Who is the school desk really built for? The teacher. Sitting is a natural way to become sleepy.

Research

- Research has established the link between PA and brain health. Fight or flight - when you are stressed, cortisol increases.
- Referenced research by John Ratey (including his book [*Spark*](#)). In Dr. Ratey's book he profiles a school in Chicago with a student population that has a lot of disparities; the school changed all their classrooms to kinesthetic classrooms with much success).
- Simply standing up = increased blood flow

Teacher experience

Staci Dodgens – teaches 5th grade:

- She has one class of all girls. Second year teaching in a kinesthetic classroom.
- She has noticed that students' behavior and attention span have improved a lot. Has also noticed a huge change in discipline.

- The kids come into 5th grade with their records from before and can see the students' history. She noticed that many of her students had had numerous office referrals and other discipline issues. She didn't see that behavior at all.
- At first she was worried the kids would be bouncing off the walls with all the activities, but she hasn't seen that. Instead, she's seen huge positive improvements.

Kimberly Terry – teaches 5th grade gifted and talented:

- Kids are better behaved when they can move around.
- One student this year gets really tired. Teacher has noticed that if this student is at a wobble board or a standing desk he doesn't fall asleep.
- She also has a table set up with regular chairs as an option for her students.

Value of kinesthetic classroom:

- When Mr. Wilkie went back to teaching in a classroom last year, he selected some of the kids that had more challenging behaviors to see how the kinesthetic classroom changes things for them.
- The kids will do better and get more out of the classroom and be more motivated and energetic and more engaged as a learner.
- There are five things we all need: survival, power, fun, freedom, and belonging. The kinesthetic classroom will provide four of those.
- Mr. Wilkie partnered with best teachers in the building and taught teachers about kinesthetic classrooms. He also taught teachers about kinesthetic classrooms in neighboring districts.
- At their school they hold an open house and students are really excited and want to come when they see the kinesthetic classrooms.
- Parents also want their kids in those rooms, because they see that it will help with some of the discipline issues they may have had in the past.

Active learning lab

- In addition to the kinesthetic classrooms (regular classrooms that are set up to encourage movement), every kid gets to go thru the Active Learning Lab with Coach Wilkie for 1 hour a week.
- The Active Learning Lab has opportunities to be active while also engaging in academic or problem-solving activities. For example, students solve multiplication tables or rubix cubes while being active. There is an active typing center where the students sit on [hokki stools](#) so they wobble.
- The active learning lab also has a crawling station. Crawling is associated with reading; students have a chance to army crawl through an obstacle course. The lateral movement of crawling uses both sides of the brain, and that coordination is also associated with reading.
- Even if a student isn't in a kinesthetic classroom the rest of the time, they still get this hour in the active learning lab.

Academic and other improvements

- Student A: In 4th grade, had 14 office referrals. Came to 5th grade in kinesthetic classroom and had no office referrals, improved from Cs and Ds to As and Bs. The student said he was anxious in 4th grade and he couldn't get the nervous energy out.
- Student B: Had severe anxiety in 4th grade and had three office referrals; had also needed a separate place for testing. Came to the kinesthetic classroom in 5th grade and after 2nd day in kinesthetic room never needed the fidget toy after that and also didn't need a separate place for testing. Successfully took state tests on a bouncy stool.
- Student C: Female In 4th grade had missed 42 days of school, missed only four days in kinesthetic classroom for 5th grade, which were due to flu.
- Student D: In 4th grade had many violent office referrals. Started kinesthetic classroom end of October for 5th grade and only had one office referral that year, and that was in the first week.
- Student E: Student had severe anxiety and realized on their own that bouncing on a yoga ball helped decrease their anxiety.

Overall observations

- With the kinesthetic classrooms, kids are so much more motivated.
- The kinesthetic classroom model works for all kinds of students, including both higher and lower performing students. The kinesthetic classroom gives a release to all kinds of kids.
- This school has seen it work well with boys and girls.
- In their single gender boys classes, the boys don't seem as anxious, competitive, or nervous as they have in the past.

Questions and answers:

What types of things are in a kinesthetic classroom?

- Wobble cushions – like a stool. Cheapest item.
- Under the desk pedals – typical desk/chair and the pedals go on the floor
- Tables rather than desks
- Zenergy chairs and hokki stools (these are more recommended than zenergy chairs)
- Bicycles with a desktop on them
- Standing table
- Wooden balance board
- Wobble boards
- Active learning lab equipment – Check out www.youthfit.com and www.amazon.com for many of these items:
 - Elliptical
 - Regular exercise equipment
 - Bicycle desk and bicycle stool – play connect four
 - Rocking turtle shell
 - ½ ball big enough for 5th graders to sit in.
 - Jumping Jumparoo
 - Bosu balls
 - Rubix cube station

- Balance discs
- Basketball goals – do vocab and spelling, name presidents, amendments
- Outside – balance beams, foam pad with numbers
- Crawling station
- Obstacle course

How did you secure administrative support for this?

- At Boiling Springs they have PE for 1 hour a week in district, and the principal was not satisfied with that amount so they added a PE/health class to augment the time.
- Administrator knew the research on PA and academics. PE teacher used John Ratey’s research to support the case.
- Biggest problem after awhile was where to store the regular classroom desks once they shifted over to other seating arrangements.
- Principal definitely needs to be on board.
- It doesn’t work for this to be a fix for teachers who don’t have good classroom management. This approach helps make kids who struggle do better in school, but you need a teacher who has good classroom management to be able to implement it.

How do you handle it when students want to use the same equipment?

- Do a rotation around the equipment – every 4 to 5 weeks or so
- One teacher has a time chart of 15 mins on the bike and went down class list alphabetically to get a turn. If somebody didn’t want their turn they could skip. Now with several different options they rotate around every few weeks.
- New seats every Monday.

How do you make the pitch to resistant teachers, especially for brain breaks?

- There are six components of kinesthetic classroom – brain breaks is one piece of them.
- Don’t schedule brain breaks - use them when kids nod off. Also use Go Noodle.
- It’s difficult to change educators, so let them see it. Do some things in staff meetings – like brain breaks – as a sample.
- Start out slow, and let folks see the benefits of it. This helps get them motivated.
- Another participant suggested using one classroom as a test case, run by the most energetic person, and then building on that success.