

Charter school at center of FSU 'minds in motion' study

November 1, 2012|By Heather Carney, Sun Sentinel

CORAL SPRINGS — — They're all but sweating in their uniforms and sneakers. The middle-schoolers pedal, spinning the bike wheels at a brisk pace, while their minds reel with fractions, multiplication and math concepts. Coral Springs Charter School sixth- and seventh-graders participating in a pilot study in the school's kinetic learning lab — an extension of the school's weight room filled with cardio equipment — move continuously for 45 minutes while learning a math lesson.

Athletic director Mike Higgins is working out the kinks before the real, 10-week study, sponsored by Florida State University, starts in January. The study will test if learning while exercising results in better learning comprehension, better behavior and improved overall fitness.

Higgins and school principal Gary Springer are recruiting 80 sixth- and seventh-graders from across Broward County to be a part of the experiment. Other studies have looked at the effects of exercise before school or at breaks throughout the school day, but Higgins is one of the first to study the benefits of exercising and learning simultaneously.

And he's living proof that it works, said John Ratey, a Harvard professor who's collaborating with Higgins and FSU on the study.

As a freshman in college, Higgins lost his baseball scholarship and started failing his classes.

Higgins said failing college wasn't an option. He came up with his own way to focus.

"I took something I enjoyed — working out — and something I didn't enjoy — studying," he said.

Higgins brought his books to the gym. He read while spinning or doing low intensity workouts on the treadmill. He studied for 20 minutes and then lifted weights for 20 minutes.

Slowly, the information started to stick. His class grades went from failing to passing.

Four years ago, Higgins incorporated the active style of learning into teachers' lessons at the charter school. He noticed learning gains in football players, students who consistently acted up in classes or those with learning disabilities such as attention deficit disorder.

"At the beginning these kids have such high energy, they want to chit chat so much," he said. "Then, about two minutes into working out you begin to see their breathing steady. They focus."

On a recent afternoon, instructor Buddy Fisher taught fractions to the pilot class.

"What you do to the bottom, you always have to do to the top," Fisher repeats to the class as the students, walking or cycling, brainstorm the common denominator.

"Kinesthetic learners fall through the gaps in a regular classroom," he said.

It's not just active learners or students with learning disabilities who benefit from this method, said Ratey, who studies exercise and the brain. He's never done a study on exercise and learning simultaneously.

"I've looked at kids of all stripes, certainly the ADD kids get even more bang for their buck," he said. "But even in the control group, kids not diagnosed with ADD, had an improvement."

Thirteen-year-old Michael Clancy is participating in the kinetic learning class for his second year. He said he has trouble with math. Some people think he might be dyslexic, he said.

In the kinetic learning class, he walked steadily on a treadmill while practicing his math problems.

"It's better when I'm doing something and my brain is working at the same time," said Michael.

His new trick at home is to study from his books while **walking around** his house. His test scores improved and he jumped one to two letter grades in his math classes.

FSU professor Frances Prevatt, who developed and will implement the controlled study, said it's possible that neurotransmitters released during exercise stabilize chemicals in the brain to help students focus.

Ratey said that exercise can have the same effect as certain medications like Prozac, Ritalin, or Adderall, including "calming, focusing, improving motivation, decreasing anxiety, and stress."

If the study proves that exercise improves academics, behavior and overall health, Higgins hopes to open up kinetic learning labs across the county to tutor students outside of the classroom.

hcarney@tribune.com