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What is CSPAP?

Comprehensive School Physical Activity Program

Amanda Amtmanis, Spencer & Macdonough Elementary Schools, Middletown Public Schools

Be a physical activity champion for your school!

As the only PE teacher (for two schools) that the students only see once a week, I know that I really need to push for physical activity in other realms for my students. The interconnectedness of all of this was really reinforced for me recently when my colleagues at Spencer School nominated me as one of the “Tireless Staff Members”. I was surprised to be recognized in this way because I work with a lot of really hardworking people (we are all pretty tireless) and this initiative is only in its second month, I'm only in the building 3 days a week and let's face it, the general educators' minds don't usually jump right to PE. So this was quite an honor!

When I read the kind words that my colleagues wrote about me, I was really touched but I was also struck by the impact that some of the other initiatives in our active school plan are having. Someone mentioned Pokémon Move, which is a gamification of our CSPAP that encourages movement breaks in the classroom and physical activity outside of school. Someone else mentioned the cardio drumming that I offer for staff after school. Even though the cardio drumming is probably the most tangentially related to my students and our PE classes, it has definitely had a positive impact on my colleagues who participate. They are discovering some for the first time- the benefits of and joy in movement. They are more open to suggestions for movement in their classrooms. They are more likely to advocate with me for more PE time. Having them recognize me in this way - on a bulletin board in the front entrance to our school - is also likely to have a positive impact with parents and members of the community by increasing visibility for our physical education program and potentially creating more advocates for more PE time.

I'm sharing because sometimes all of these different things can seem like extras and unrelated to each other. It can be exhausting sometimes to try to make sure that all of these things are happening (physical activity during the school day, physical activity before and after school, community engagement and staff involvement, in addition to quality physical education) and we may wonder if they are all that important and worthwhile. Even if your colleagues are not as thoughtful and generous with their time and their praise as mine are (I am really blessed), I want to affirm for all of us that what we do - our quality teaching and all of the other extras that we provide - does have an impact and does make a difference for our students, for our colleagues and for our profession.
The theme for the CTAHPERD Fall conference is “Better Together!” and it will be better if you are with us!!!

Save the date: November 15-16, 2018.

Without leaving the state you will get to mingle with recent SHAPE America President Jackie Lund, be inspired by Camille O’Bryant, National SHAPE America Award Winner and Cal Poly Distinguished Teacher, and dance with the National Dance Society’s Executive Director Fran Meyer. Add our Teachers of the Year, Exhibitors, Professors, and CT’s finest PK-12 health, dance, and physical educators and we have two fine days of professional development!

Call for Proposals – Submit Your Proposal Now! - http://www.cvent.com/d/ptqhog

Please consider submitting a proposal to present at the Fall Conference. Here are a few ideas on how you can embrace this year’s theme:

• How one generation (or grade level) works together with another.
• How cultural strengths brought together create a stronger sense of community.
• How social justice skills can be taught so that we can “ride” better together.
• How our disciplines can be interwoven (HPERD) to make innovative experiences that are more holistic, provide active classrooms, encourage thought in different ways etc.
• How universal design ensures that everyone has equal access (a bicycle that has a seat for the youngest, a platform for a wheelchair, a fitting for a prosthetic foot, etc.)
• How universities and K-12s can collaborate in innovative teaching and new research.

Pictured below from left to right, 2018 Fall Conference guest speakers: Jackie Lund, Fran Anthony Meyer, Camille O’Bryant. Check ctahperd.org for conference updates!
**APPS DU JOUR**

Mike Ginicola, VP Elect Dance
Stratford Public Schools

**BAM Video Delay ($7.99)**

“Bust a Move” Video Delay is an app that displays delayed video, allowing students to get nearly instant feedback on their skills performance, something that used to be only available with expensive and complicated equipment. The teacher points their device towards the target area in the room (works best with a tripod or holder), and after the set amount of time (say, 15 or 20 seconds), students visit the device to see how they performed. There’s no recording on the device as it just delays what’s on the screen 15 seconds before (the amount of time is completely adjustable).

My favorite use for it is to set up multiple fitness stations in the gym, and at one of them I place an iPad on a tripod with the delay app open, so students can work on push-up form. Students can alternate with a partner between doing five push-ups and then jogging over to see how they looked while their partner is performing their turn. It’s a constant cycle of action and review. This helps eliminate the “camel humps” and “sagging seal bellies” so common in student performances. They often have no idea that they arch or sag, and the video allows them to self-correct. It’s powerful stuff that can be applied to almost any P.E. lesson or content. I often have three stations running at a time with the app.

It’s certainly not free, but it does go on sale from time to time. Districts might be willing to purchase it as well. I highly recommend everyone give BAM Video Delay a look as it’s become a staple app on my iOS devices for school!

**QR Stopwatch ($2.99)**

There are many uses for QR codes in education, be it station demo videos, animated GIFs and even directing students to Google Docs. This specific app does something unique in that it allows for automated lap counting during fitness testing of the 1-mile run. It allows for timekeeping of several people, starting at different times, and works without a single click - just show it any QR code to start a new stopwatch!

To use it, a person simply places the QR code in front of the scanner, which will then automatically generate the name (or whatever you attach to that card - could be a number, etc.) and a new individual stopwatch time will be started for them. When someone scans the same code again, the timer stops. It can be restarted if desired as well (like if a student needs a short break for any reason during the run).

This means that as the 1-mile run begins, students go to your phone or tablet and scan their QR code (a great idea is to have the code in a clear pocket on a lanyard) in the app and start running. When they're finished with the last lap, they scan again to get their time. That data is then available for the teacher to pull up at any time. What’s great is that students can start at different times, and the teacher doesn’t have to worry about anything aside from watching the field or ensuring that students scan properly.

I recommend this app to anyone looking to automate any activity requiring a stopwatch. No more popsicle sticks, rubber bands, or other items that students tend to drop or lose, invalidating the run or activity.

Here’s a wonderful demo video from Kevin Tiller that explains how to set it up:
https://www.youtube.com/watch?v=h3cP8NA5ROU

**Apps Du Jour** is an ongoing column for The Bulletin. If you are excited about an app, and would like to share how you have incorporated the app into your class or professional life, please contact me at ginicolam@stratk12.org or on Twitter @PhysEdDepot.
The Catherine J. Fellows Dance Education Center

Stephen Hankey, Adjunct Dance Faculty, CCSU

On April 22, Catherine J. Fellows was honored at Central Connecticut State University when the Dance Education Center was dedicated in Catherine’s name. The tribute and dedication followed this year’s spring dance concert, “Soul Shine”, at the Dance Education Center which is now known as the Catherine J. Fellows Dance Education Center.

With Catherine as the artistic director, choreographer and performer, “Soul Shine” was a tribute to Gregory LeNoir Allman and Claude “Butch” Trucks. This “Tribute” was very meaningful to her, as she had a long personal relationship with both of these musicians. Her husband, Jaimoe is one of the founding members of The Allman Brothers Band. Catherine’s daughter, Cajai, who is now a professional dancer, was one of the performing guest artists in “Soulshine.” Dancing alongside the other professionals, Gentry George and Felipe Puletini, the CCSU dancers and student dancers from the community put on an impressive performance. However, because of Catherine’s passion for her life-long work, and her students’ success, there is no doubt that dance performance and dance education will be in her students’ future careers.

Following the performance, students, parents, colleagues, friends and family gathered for a celebration in front of the Dance Education Center, where entertainment was provided by Jaimoe’s Jassz Band. The ribbon cutting was done by, President Zulma Toro, Professor Catherine Fellows, Cajai Fellows Johnson, and Jaimoe Johnson. Following the ribbon cutting and unveiling of Catherine’s name above the door, guests were led inside for the tribute to her from several speakers and the dedication of the building by CCSU president, Dr. Zulma Toro.

Dr. Toro was very excited and proud to have dedicated the Dance Education Center in Professor Fellows’ name. Dr. Toro also stated that Catherine was very worthy to receive this honor, for her many years of hard work and dedication to her students, faculty and the Central Connecticut State University. This also coincides with Catherine’s determination, curriculum development skills, and most of all her vision, which guided her to work in conjunction with the Connecticut State Education Board in crafting, the CT Dance Teacher Certification, CT Dance Cross Endorsement at the state level, and Dance Education Major which is now offered at CCSU.

Catherine talked about her mother and father and accredited her much strong work ethics because of the values they instilled in her. Her mother encouraged her to follow her passion, and to give it her all. Her father who was a commercial fisherman in Stonington taught Catherine about perseverance, which was needed to succeed in this very field of work. This kind of teaching from Catherine’s parents is what provided her with such a platform from an early age, which eventually shaped the ground work for her in becoming an educator. Catherine’s motto is “Don’t ever give up!” Catherine grew up in Stonington and Lord’s Point CT. She enrolled at Central Connecticut State as a Physical Education Major. After graduating, she went on to receive her Master’s Degree in Dance Education from Boston University and a 6th Year Certificate, Dance in Education from CCSU.
Catherine began her career at CCSU in 1976. She is now a full professor and the coordinator and director of the Dance Education Program. Catherine’s career has taken her all over the world, performing and teaching, as well as having choreographed many modern ballets. The Artist in Residence program, which she established, brings world class choreographers and companies to the CCSU campus. Professor Fellows is dedicated to providing all students with an opportunity to be educated through the art of dance by insuring that Connecticut public and private schools employ certified dance educators.

After seeing such an array of dances and dancers on stage, I can truly say that Catherine, as the Artistic Director, has really embraced the true sense and meaning of the word diversity. It was an honor to be present on this ‘Earth Day’ April 22, at the Welte Theater and have the Dance Production of “SoulShine” exudes the flora and fauna of nature and the humanity of life, grace the stage. The dedication and tribute to Catherine J. Fellows will truly go down in the CCSU Archives. All that I can say now is, BRAVA!
Soulshine Shines!

Catherine J. Fellows, Central CT State University

The CCSU spring dance concert, SoulShine, was held on Sunday April 22, 2018 @ Welte theatre to an enthusiastic audience of approximately 800 people on this auspicious day, Earth Day. The wide range of dance pieces on the Soulshine program artistically were woven providing social commentary on issues in society and the condition of mother earth, diverse cultures and world peace. Soulshine conceived and directed by Catherine Fellows was a tribute to Gregory Lenoir Allman and Butch Trucks.

The show opened with Fellows’ futuristic No Shade - the ozone layer has called it quits and life is essentially extinct. Depicting a tragic end of the world, the three men and women dressed in white were buried under a large heap of styrofoam. Throughout the piece the dancers slowly discovered their human instinct to survive while the chorus pitched in sweeping and cleaning up the earth.

The audience immediately transferred to today’s hustle and bustle in the streets of NYC. This very energetic and fast-paced dance showed off the performers technical abilities to The Allman Brothers’ One Way Out. This piece was staged and choreographed by Cajai Fellows Johnson.

Transitioning back to our country’s past with Place-Trace was skillfully choreographed by senior Arden Warinsky.

The cast of twelve keenly told the sensitive story of hope as our ancestors traveled to America in search of a better life. Trace clearly set the stage for respecting our different heritages as Fellows’ selected an array of dances from around the world. (see picture gallery)

Whipping Post was masterfully performed by Felipe Puletini, guest artist from Brazil.

He intensely danced in harmony with the emotional struggle of Gregory Allman’s Whipping Post.

The main company performed with determined execution Fellows’ Heartbeat. The rhythmically riveting dance with undertones of self-destruction and sacrifice, finally glimpse at the possibility of ascension, ending Act One.
Act two opens with NOW-No other way a dramatic look at Mother Nature’s, portrayed by CarliAnne Lanou, attempt to balance the elements of nature.

She succeeds and the sun gloriously appears.

Sun is performed gracefully by the entire company. This heart-warming piece was inspired by the Beatles.

Continuum, choreographed by Sydney Billings was recently seen at the American College Dance Festival. Performed by the main women of the CCSU Dance Company, the striking piece evoked strength and persistence of women moving forward in this world, creating a safe place for future generations.

PeaceTree, choreographed and performed by Fellows, highlighted The Int’l Peace Belt as peace was passed onto the next generation, represented by Olivia Carlson. The amazing Ana Grace children joyfully danced their way through the restored green forest as they were showered with peace.
Soulshine, choreographed and performed by Cajai F. Johnson and Gentry George. Love, grace and light, shines from their very souls.

The Finale, One for All, performed with the entire cast, embracing unity and love for all with hopes of restoring community value locally, regionally and globally.

Choreography by Fellows and Felipe Puletini

This year the artistic director chose to dive deep into the community welcoming to our CCSU dance family; students from The Ana Grace Academy, The Chinese Cultural Center and students taught by our CCSU dance majors from their hometown studios. Ninety-two elementary school children, who love to sing and dance, and in fact attend schools for the performing arts, graced the stage with their hearts and souls shining! The Soulshine collaboration with seasoned professionals, CCSU dancers, PEHP majors and guest artists proved to be very rewarding and exciting on and off the stage for all involved- showcasing the talents of this diverse group. It is extremely important for children to become familiar with being on a university campus and learning that college life is a reality not a dream. As we all know education is not an option but a necessity.

C. Fellows performs in PeaceTree

* Photos by John Atashian

The Bulletin will be published three times in 2018-2019. Send in photographs, articles, and news announcements to Bulletin Editor David Harackiewicz by the following dates:

**September 15, 2018**
(print issue)

**January 15, 2019**
(electronic issue)

**April 15, 2019**
(electronic issue)

harackiewicz@ccsu.edu
2018 Dance Scholarships and Awards

The Catherine J. Fellows Scholarship was awarded to Olivia Carlson, Dance Education Major. This scholarship is awarded to a future dance educator.

The Demetra D. Perrelli Dance Scholarship was awarded to Mackenzie Barnes, Dance Education Major. This scholarship is awarded to a future dance educator.

The Estelle Jones Triarhos Scholarship was awarded to Kristen Cullen, dance minor. This scholarship is based on academic excellence and performance in the CCSU Dance Program.

The Carol Ciotto Dance Leadership Award was presented to Sydney Billings, dance minor. This award is given to a student who demonstrates outstanding leadership skills in the CCSU Dance Education Program.
User-Friendly Formative Assessments in Health Education Classrooms

Dr. Patricia L. McDiarmid, Western CT State University

The purpose of this article is to present some easy and quick ways to assess students on content in Health classroom settings. In light of the fact that teachers cannot predict what children will learn teachers must execute continual assessments during the delivery of instruction.

Assessment Then and Now

Only 2-4 decades ago, assessment in schools consisted of being given a “score”, often criticized, and left with a feeling of “good”, “bad”, or “I failed”…leading to negative emotions related to being assessed. Today assessment and evaluation are more positive with learners at the center of the process feeling rewarded for efforts during which the learner is credited for his or her accomplishments through multiple sources of feedback.

The table below presents characteristics of assessment practices in the past in the left column and newer assessment approaches in the right column.

<table>
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<th>THEN</th>
<th>NOW</th>
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<tr>
<td>1. Assessment was administered only at the end of an educational experience</td>
<td>1. Assessment is part of the learning process</td>
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<tr>
<td>2. Assessments were “one and done” with limited or no options for “do overs”</td>
<td>2. Assessments provide steps for improvements and provide multiple attempts for success</td>
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<tr>
<td>3. Fear of failure during an assessment caused anxiety for a learner</td>
<td>3. Failure is redefined as an opportunity, made possible through integrated assessments. Students are encouraged to take risks and discover solutions on their own.</td>
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<tr>
<td>4. Students were told what to do before, during and after an assessment.</td>
<td>4. Students make decisions on how to prepare for an assessment, what specific skills they need to work on most and how to improve those skills as a result of an assessment</td>
</tr>
<tr>
<td>5. Rewards for successful completion of an assessment were limited. Students were “expected” to pass an assessment</td>
<td>5. Varying rewards exist for the varying levels of assessment success. Students impose their own value on successful completion.</td>
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<tr>
<td>6. Students hated (at least did not look forward to) assessment.</td>
<td>6. Students expect to be assessed</td>
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If a group of teachers were asked to list reasons for assessing students in their classes, here might be a typical list:

- Gauge students’ prior knowledge
- Clearly define and communicate learning goals to students
- Provide diagnostic feedback to teachers and students
- Assess and improve teaching effectiveness
- Identify students’ strengths and weaknesses
- Improve students’ awareness of learning progress
- Engage students in self-assessment and communication of learning progress

According to Liljedahl (2010) it is difficult to ignore that one of the primary purposes of assessment is to gather information for the intention of reporting a student's (or a group of students') progress out to stakeholders other than the teacher and students. Indeed, such a purpose is a natural extension of assessment as communication.

Some researchers argue that formative assessment is a misleading term. Assessment for learning may be the preferable term, as it requires five elements to be in place. Dylan William, Emeritus Professor of Educational Assessment at the UCL Institute of Education (2012) offers the following elements:

1. The provision of effective feedback for students
2. The active involvement of students in their own learning
3. The adjustment to of teaching to take into account the results of the assessment
4. The recognition of the profound influence assessment has on the motivation and self-esteem of students, not of which is critical influences on mastery learning
5. The need for students to be able to assess themselves and understand how to improve
Below are five easy and quick ways to assess students with directions for executing each in a classroom setting.

1. **Alphabet Taxonomy**
   - The teacher splits the large group into small groups.
   - Students write the letters A-Z on notebook paper or provide a template.
   - Each group brainstorms something they learned – one thing for each letter of the alphabet.
   - Responses can be one word or phrases.
   - Points can be awarded if the teacher wants to create a competition.

2. **Chain Notes**
   Directions:
   - Pass around a large envelope with a question about the class content.
   - Each student writes a short answer, puts it in the envelope, and passes it on.

3. **Give One…Get One…Move On**
   Directions:
   - Think of an important idea you have learned about this topic or one that has recently been reinforced. Write it down in Box 1.
   - Pass the sheet to another participant who will silently read what was written in the first box.
   - That person will add an idea in Box 2.
   - Do not repeat ideas that are already listed.
   - Continue passing on the paper and adding ideas until all the boxes are filled with ideas.
   - Return the sheet to the original owner.

4. **Incomplete Sentences**
   Directions:
   - Write the following statements on the board:
     - “Today I learned...”
     - “I now know...”
     - “I am still confused about...”
   - Invite volunteers to respond to one of the statements.
   - Also can use incomplete sentences related to content knowledge in worksheet format

5. **Minute Papers**
   Directions:
   - Distribute a “Minute Paper” to each student (time range 1-5 minutes)
   - During the last few minutes of the class period, ask students to answer on a half-sheet of paper or for the Email Minute have them email responses
   - Students must complete the paper or email before leaving the class.

If we think of our learners as plants in a garden short term formative assessment practices such as those described in this article are the equivalent of feeding and watering the plants appropriate to their needs - directly affecting their growth. Experiment with one or more and please reach out to me with any questions. **Good luck!**

References:


NWEA Website: Measuring What Matters [https://www.nwea.org/professional-development/keeping-learning-on-track](https://www.nwea.org/professional-development/keeping-learning-on-track)


William, Dylan (2012). Embedded Formative Assessment

Implementing Resistance Training in Secondary Schools

Dr. Robert Axtell, Southern CT State University

I have written previous articles over the past few years regarding the importance and safety of offering resistance training (RT) programs to adolescents in public schools. The concept of implementing a school-based resistance training program is not new. Siegal, Camaione, and Manfredi (1989) implemented an elementary school resistance training program carried out by a classroom teacher utilizing stretch bands and hand held weights. Following the twelve week training period, significantly greater gains were made by the experimental group for right handgrip, flexed arm hang, pull-ups, and flexibility. Greater decreases in sum of skinfolds were also found. Training responses of boys and girls were similar. The authors concluded that a group strength training program can be an effective means of increasing fitness levels and improving body composition in both boys and girls of this age in a school-based setting (mean age 8.5 yrs) (Siegal, Camaione, & Manfredi, 1989).

No longer is physical inactivity an American issue as Kohl, et al. described physical inactivity as a global pandemic (2012). Moreover, as previously mentioned in this column and further supported by Dumith, et al., physical activity levels decline during adolescence with only 20% of global adolescent’s appropriately active (2011). Cohen, et al. (2011) suggested that there has been a global decline in muscular fitness. Thus, a research group from the University of Newcastle, New South Wales, Australia implemented a 10-week study to evaluate the effects of a “Resistance Training for Teens” program on muscular strength in a school-based, scalable setting. The RT program was designed to improve muscular fitness and provide secondary school students with knowledge, motivation, and skills to engage in resistance training. The RT program was designed from previous obesity-related research to be delivered over one school term (10 weeks) for approximately 90 min.week-1. The intervention was delivered via required physical education classes, co-curricular school sport, and an elective course entitled Physical Activity and Sports Studies (Kennedy et al., 2018).

Kennedy et al. describe the methods of this scalable study (N=607) in great detail including a brief intervention and implementation description along with links to a website showing the activity session structure. The structured RT activity program followed a specified format including: movement-based games and dynamic stretching warm-up; RT skill development; high intensity RT workout; fitness through modified games, boxing, or core strength activities; static stretching; and reinforcement of behavioral strategies (2018). This structured format was carried out with minimal equipment including body weight exercises, elastic tubing, and RT modified games. The behavioral strategies included: move when you can, obtain some vigorous activities, limit screen time. The primary outcome measures were the push-up test for upper body muscular endurance and the standing long jump for lower body muscular strength (Kennedy et al).

The intervention demonstrated significant upper body muscular strength improvement after 6 months and was maintained through 12 months (in particular with overweight & obese participants) (Kennedy et al., 2018). There were no changes in lower body muscular strength. There were additional secondary outcomes that were assessed that are not discussed here in great detail. One of the important take away messages from the authors was the ability of researchers to train teachers how to deliver a RT intervention utilizing a minimal amount of equipment. Furthermore, there were increases in RT self-efficacy, self-motivation for physical activity, RT skill competency, and flexibility (sit & reach). Finally, the authors suggested that schools are perfectly placed to introduce adolescents to a whole host of physical activities including RT. Introducing RT in an appropriate manner may provide young students with the necessary competency of resistance training movements and the self-confidence to participate in this form of physical activity across the lifespan.

References:


On July 1, 2018, the partnership between SHAPE America, its 51 state affiliate organizations, and the AHA will conclude. It is now time for us to open doors to alternative fundraising opportunities for teachers, schools and students. To all CT JRFH/HFH Coordinators who have been committed to the success of our state JRFH/HFH programs, we are forever grateful. We look forward to your support in our combined efforts with SHAPE America to provide students with opportunities and successes that will continue to empower them to live a healthy, active life, as well as give back to their community.

### Discreet Vaping Devices in Schools

Christie Cardinale, Westport Public Schools
Karen Bosworth, Cromwell Public Schools

New vaping devices, such as, “Juules,” have emerged and are being found in schools in the form of USB thumb drives, and are being charged in devices that support USB-charging, such as laptops. It is recommended that teachers be on the lookout for such devices, terminology surrounding, “Juuling.” As with other vaping devices, these devices do not give off a strong scent that can always be detected. Additionally, students have been known to pass-off the devices in school bathrooms and in classrooms, as well as use them under sweatshirts and baggy clothing during classes.

According to the U.S. Surgeon General the use of electronic cigarettes pose significant risk to young people in our country. A few consequences of this risky behavior include, but are not limited to, increasing the possibility of addiction, and long-term harm to respiratory health and general brain development. Furthermore, electronic cigarette (E-Cigarette) use is associated with use of other tobacco products that can do even more damage to one’s body (U.S. Surgeon General).
Damage to one’s health is avoidable!

Learning Activities and Teaching Resources on the Effects of Vaping

● **First:** it is imperative for health educators to become familiar with the adverse effects of vaping and partake in as many professional development activities as possible. Many towns are now offering free informational programs within their libraries and community centers that discuss the health implications of electronic cigarettes. These programs offer the opportunity for health experts to engage their communities in meaningful conversations, answer questions related to this epidemic, and provide examples of vaping paraphernalia.

● **Second:** invite your school resource officers into your classroom. Prior to their engagements, have your students to craft questions anonymously about Juuling on index cards or sticky notes and provide time for your school resource officers to answer them. Additionally, have your school resource officers discuss the current laws associated with vaping and the infractions that may occur if they are found with vaping materials on and off campus.

● **Third:** Stanford Medicine’s website provides an entire unit on Juuls. This can be found at –

https://med.stanford.edu/tobaccopreventiontoolkit/E-Cigs/ECigUnit6.html

The unit includes PowerPoints, worksheets, and a Kahoot! activity.

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**Exercise Is Medicine on Campus**

Dr. Jeff Schlicht, Western CT State University

In 2007 the American College of Sports Medicine (ACSM), in conjunction with the American Medical Association, began an initiative called Exercise is Medicine (EIM). The stated purpose of the program is to get doctors to prescribe exercise as part of their treatment plans and to have health care providers assess physical activity status during routine patient interactions. In 2009 ACSM began a secondary program called Exercise is Medicine on Campus (EIM-OC) targeting colleges and universities.

EIM-OC has three goals. The first is to encourage and recognize campuses that are promoting awareness of the health benefits of physical activity (for example, offering a course on exercise and health). This earns the campus Bronze level recognition. The second goal is to get campuses to actively support physical activity by offering EIM events for students, faculty, and staff (e.g. hosting a 5k that raises breast cancer awareness and talks about the benefit of exercise in reducing risk). This garners Silver level recognition. Campuses that have their Student Health Services departments put a question about exercise onto their intake forms, making exercise status a “vital sign,” fulfill the final goal, which earns Gold level recognition.

In the Connecticut State University system three of our four campuses are recognized by the EIM program. Central is a Silver campus and Southern and Western are Gold campuses. At Western Connecticut State University (WCSU) we earned Gold status for the first time this year. Working with our Health Services department we created a single sentence that was added to the student medical intake form:

**Do you do at least 150 minutes of structured cardio (walk, run, swim) per week?**  Yes  No

If a student answers “No”, they are given basic information about how exercise reduces risk for diseases such as heart disease and Type II diabetes, and told that exercise is a potent stress reduction tool. They are also made aware of the free exercise counseling service provided by the Health Promotion and Exercise Sciences (HPX) academic department and encouraged to enroll.
The ultimate goal of exercise counseling is to provide students the support they need to initiate and maintain a physically active lifestyle. During a first meeting we discuss ideas and strategies for increasing activity and answer questions about exercise. For students who are intimidated by fitness equipment, we provide a walkthrough of our campus facility where we explain how to access the fitness center (you need a valid student ID) and how to use the equipment.

The logic behind the EIM-OC program is that the sooner you start talking to people about the health benefits of exercise, the better. Following this logic, bringing Exercise is Medicine to primary and secondary schools should also provide benefits for children and adolescents, setting the stage for a life-long engagement with exercise as a vital part of a healthy lifestyle.

What can you, as a Connecticut health and fitness educator, do to bring the EIM message to your campus? First, identify your campus health resources. These are probably your school nurse(s) and mental health counselor(s). Have you ever had a conversation with them about the importance of physical activity as a front-line defense against disease and mental health disorders? Can you get those primary care professionals to assess physical activity habits when they evaluate students (the key to Gold level recognition on the college level)?

At WCSU it was easy to enlist both Health Services and Counseling Services as allies in the fight against physical inactivity. Each department was already giving advice about exercise. All it took was for someone to reach across disciplines and initiate a conversation for us to make explicit that at WCSU we believe Exercise is Medicine. Now we are beginning to actively transmit that message to our at-risk young adults.

If you’d like to start advocating for exercise as medicine on your own campus, please reach out to any of the CSU EIM-recognized campuses for help and advice. We are connected to a national resource network of colleges and universities who provide us support so let us be your Connecticut Exercise is Medicine on Campus support network.

Jeff Schlicht, Ph.D.
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CT Proudly Supports 50 Million Strong
SHAPE America’s initiative, 50 Million Strong by 2029, demonstrates a commitment to put all children on the path to health and physical literacy through effective health and physical education programs.

President Jan Bishop is planning a wall of photos at the Fall Conference depicting HOW YOU AND YOUR STUDENTS demonstrate this commitment in Connecticut. Once you gain permission to use a photo taken at your school, please send it to Carol Ciottocaj by October 15, 2018. ciottocaj@gmail.com
Creating Good Movers

Dr. Jan Bishop, Central CT State University

Beautiful movers... are joggers running with arms and legs pumping straight forward and back (direct projection), people lifting heavy objects by first activating their stabilizing muscles before lifting (kinetic chain), individuals of all ages standing tall with graceful alignments from head to toe (core strength, muscle balance), jumpers landing in good athletic stances (healthy knees, including ACLs), sports participants and dancers using both sides of their bodies with equal ease (symmetrical range of motion, strength), and young and old being able to hold their balance to prevent a fall (neuromuscular control, balance and coordination).

What we don’t want are physical therapists and personal trainers having to spend time improving movement patterns because we have graduated K-12 students with asymmetries in flexibility and insufficient muscle strength to properly stabilize the body. When individuals have muscle weaknesses, imbalances (and injuries) they often compensate by changing how they move. Unfortunately these compensated patterns can cause even more trouble long-term and be exacerbated by adding resistance or load to them. Physical educators and youth coaches can build good movers by including exercises that result in balanced muscle strength and flexibility and the neuromuscular control to stabilize the body.

The first step is to create awareness of flexibility and stability issues. The second step is to provide students with exercises to address their specific asymmetries, limited ranges of motion, and muscle weaknesses. There are formal ways to assess and/or screen individuals but for class purposes a quicker and less exact version can often provide enough information to identify areas of concern and decide on some exercises to use. Both Functional Movement Systems (FMS) and the National Academy of Sports Medicine (NASM) are good resources if you are looking to collect more precise baseline information/data.

The following four movements can help identify flexibility and stability issues in the hips, legs and shoulders. Errors to look for and suggested exercises to improve the movement pattern are provided.

Hurdle Step: Stand with feet together and toes pointing straight ahead facing a hurdle or rope that is knee height. (Two students can hold the ends of the rope for a 3rd person.) Place hands on hips and stand on one foot. Step the other foot over the hurdle/rope without touching it and then touch the heel to the floor on the far side. Then bring the foot back.

- **Inflexibility:** Student will turn the knee and ankle inward or outward in order to clear the hurdle/rope.
- **Instability:** Student will wobble; shoulders won't stay parallel to the floor.
- **Asymmetry:** One leg is more flexible than the other (the form is good on one leg and not the other).
- **Suggested Exercises:** Hamstring and hip flexor stretches both dynamic and static. Strengthening of ankles and legs using toe raises, standing on a wobble disk, balance board, etc. (One-leg exercise later in article.)

Squat: Perform a bodyweight squat with the feet parallel and hip-width apart and with the arms extended up overhead. If doing a self-assessment, face a mirror.

- **Inflexibility:** Poor shoulder flexibility will result in the arms coming forward instead of in-line with the trunk. Tight hamstrings will result in excessive torso lean, and contribute to the knees moving inward toward each other. Tight calves will result in the feet turning outward instead of staying parallel. Tight quadriceps will result in too much arch in the back. Weak muscles on the outside and inside of the legs can also result in knee misalignment – moving inward or outward respectively.

- **Suggested Exercises:**
  - Foam rolling and static stretches for the latissimus dorsi, hamstrings, quadriceps, adductors, abductors and gastrocnemius. To strengthen the inner and outer thighs, leg lifts with and without an exercise band can be performed.

  - To correct inward knee movement during a squat, a partner can hold the ends of an exercise band/cable that is wrapped around the back of the squatter’s lower thighs. The band is criss-crossed in front of the squatter so that when the partner pulls on the band it pushes the squatter’s knees inward. It is the squatter’s job to push outward with both knees against the band until the legs are parallel and maintain this position while squatting. This will strengthen the outside muscles which will help prevent the knees from moving inward.

  - Weak hamstrings during a squat can result in less control on the downward motion, and an over-reliance on the quadriceps and gluteal muscles on the upward motion. This can also

- **Squat:** From the position of the feet parallel and toes pointed, one foot stays on the ground for support and the other is lifted and brought over the hurdle/rope. The foot touches the back heel on the floor, then the squatter bends forward and brings the other foot over the hurdle/rope without touching it and then touches the heel to the floor on the far side. Then bring the foot back.

- **Inflexibility:** Student will turn the knee and ankle inward or outward in order to clear the hurdle/rope.

- **Instability:** Student will wobble; shoulders won’t stay parallel to the floor.

- **Asymmetry:** One leg is more flexible than the other (the form is good on one leg and not the other).

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- **Asymmetry:** One leg is more flexible than the other (the form is good on one leg and not the other).

- **Suggested Exercises:** Hamstring and hip flexor stretches both dynamic and static. Strengthening of ankles and legs using toe raises, standing on a wobble disk, balance board, etc. (One-leg exercise later in article.)
result in knee pain. Good hamstring exercises that are easy to add are exercise band leg curls, standing straight leg extension to the back using a band, leg curls with the lower legs on a stability ball, and the deadlift starting with just a dowel (no weight). If teaching a sport like tennis, hockey, or lacrosse, the racket or stick can be the “dowel”. If teaching soccer, basketball, or volleyball, use the ball like a medicine ball deadlift.

**Single-Leg Raise:** Lie flat on the back on a mat floor with both legs extended along the floor. Lift one leg up (keeping both legs straight). Poor flexibility is not being able to reach 90 degrees (leg straight up) or by having to bend one of the legs.
- **Asymmetry:** One leg can be raised higher than the other.
- **Poor Kinetic Chain:** Sometimes the problem is in the kinetic chain, meaning that the person tries to lift the leg before engaging the core muscles. This results in the low back lifting up off the mat.
- **Poor core strength:** If the core muscles are activated but are too weak to hold the back in a neutral position, the low back will still lift off the mat.
- **Suggested Exercises**: Foam rolling of the hamstrings. Perform dynamic and static stretching of the hamstrings. Strengthen by lying on back with back in neutral position and then progressing from lifting up one bent leg, to two bent legs, to one straight leg while maintaining good back position. Improve kinetic chain by cueing the student to tighten in the core before lifting a leg.

**Shoulder Stretch:** While standing, reach one arm down behind the head and the other up the small of the back and try to touch the fingertips.
- **Asymmetry:** Not being able to reach equally far with both arms. Usually dominant hand shoulder is more flexible because it is used more.
- **Inflexibility:** Not being able to get fingertips near each other.
- **Suggested Exercises:**
  - Hold a rope between hands (one hand behind head, one up the small of the back) and gently pull-down to help stretch the shoulder.
  - Hold a piece of equipment (racket, lacrosse stick, noodle etc.) in front of the body with one hand on top of the equipment. Hold the equipment with the other hand and lift it upward so that it creates a stretch in the shoulder area.

Teachers and coaches can also build into their program foundational exercises to promote good stability. There are many resources for such exercises including NASM which provides a nice progression starting with stability-building exercises and progressing to strength and then power-building exercises. Provided here are some ideas that can be easily incorporated into class or practice to improve stability, including some ways to make them “game-like”:

**One Leg Balance:** Standing on one leg forces all of the leg muscles to make small adjustments to keep the body stable. Here is a good progression:
- **Start with simply standing on one leg. (Close eyes if desired).**
- **Stand on one leg while extending the nonsupport leg to the front, then side, then back. A bend of the support knee and touching down of the nonsupport toe in each position can be added.**
- **Bend down and touch the ground with one hand while keeping one foot off the ground. (Allow the toe of the nonsupport leg to touch lightly on the ground for beginners.)**
- **Perform any of the above exercises while standing on an unstable surface such as a wobble disk, Bosu Ball, or foam pad.**
- **Bend down repeatedly, but each time tap a different spot on the floor (left, center, right) with one hand.**
- **Game Play:** Stand on one leg, bend down and pick up an object, stand up and place the object in a bucket at waist level. Repeat. Count the number in a row without losing balance. Can also be a timed event. The bucket must be raised up or the student won’t stand all the way up to deposit the object. Switch support legs.
- **Game Play:** Make the freeze position for tag a 1-leg balance position.
- **Game Play:** Hopscotch including stopping to pick up the marker while standing on one foot. Be sure to change legs for each round.

**Jumping Patterns:** These exercises will help develop leg and body stability during jumping or plyometric patterns.
- **Jump forward and backward over a line, jump rope, or low hurdle.**
- **Jump side to side over a line, jump rope, or low hurdle.**
- **Perform the above two exercises but land and balance on one foot for 3 seconds between jumps.**
- **Game Play:** Jump on and off a series of poly spots, Bosu balls or foam pads. See how many times in a row you can land and hold your balance for 3 seconds.
Planking: These exercises can strengthen the core and develop stability in the arms.
- Plank on the forearms or in the push-up position. (Drop to knees to make it easier or to rest before resuming a position on the toes.)
- Plank and alternately raise the left and right arms to the front and then alternately raise the left and right legs to the back.
- Plank and raise opposing arm and leg at the same time. Repeat other side. (This can be done on hands and knees if needed.)
- Plank and then lift one arm up until the body is rotated into a 1-arm side plank. Return to plank and repeat on the other side.
- Reverse plank: put the feet up on something such as a folded mat, stability ball or foam roller. Lift the buttocks to form a straight body alignment.
- Game Play: Plank Hockey: Face an opponent with both in the plank position. Use a yarn ball or other object and attempt to score by rolling the ball between the opponent’s arms. (A balled up piece of scrap paper works well.)
- Game Play: Plank and have a one person pass a hula hoop along the other person’s body such that the planker has to lift arms and legs to let the hula hoop pass. Time this to see how many times the hula hoop can traverse the body in 30 seconds or a minute. Try to beat your own time.

Rolling: These exercises help with rotary stability and learning how to sequentially engage the muscle that control rotation. Try to perform the following with a slow and controlled movement.
- Lie supine on a mat (on your back) with legs together and arms extended overhead and also flat on the mat. Lift the right arm up and across the chest. Reach with the arm and let the body follow by rolling over one segment at a time. Do not allow the legs or any other body part to push or pull. Roll back over leading with the same arm again. Now repeat rolling with a left arm lead.
- Lie supine on a mat (on your back) with legs together and arms extended overhead and also flat on the mat. Lift the right leg up and across the body to the left. Allow the body to roll one segment at a time with the leg leading the way. Do not allow the arms or any other body part to assist in the roll by pushing off. Roll back over leading with the same leg. Now repeat rolling with a left leg lead.

It is important to provide students with the time and opportunity during class/practice to improve their flexibility and stability. If flexibility issues are identified through these assessments, students can set goals to do the stretches that target where they are tight. As mentioned previously, foam rolling, dynamic warm-ups and static stretching can all play a role in improving flexibility. Allowing students to design individualized warm-ups that match their goals is ideal. At the secondary level, having foam rollers available as students emerge from the locker room will allow students the opportunity to release over-tight muscles prior to class. Physical educators seldom have time for a full static stretch at the end of class, so having students target key stretches that will help most help them may be the best use of time. Similarly, having a station or two (or dedicated time) where students can work on their own identified strengthening exercises can help them achieve good movement patterns. And of course, encouraging additional out of class stretching and strengthening can help remedy stability issues. Coaches tend to have more time to stretch and in this case it is just important to allow individuality rather than having the whole team count in unison while a stretch or strength exercise is performed.

Using Technology
Students, teachers and coaches can use devices to record an exercise motion and then look for muscle imbalances, compensation motions, inflexibility etc. There are apps (i.e. video delay) which allow students to perform something in front of the device, and then move around behind it to watch a delayed playback while it records the next person in line. A check sheet with things to look for can be available to assist. These apps do not keep the recording but others (i.e. hudl technique, and coach’s eye) do. These also allow the student or teacher to draw lines on paused video footage to identify good/poor alignment. Still photos in key positions can also be used for this purpose. To reinforce good movement pattern recognition, teachers can put correct and incorrect pictures on exit slips and/or show videos and ask students to identify what is correct and what is not.

We may not have time to build completely fit movers within our programs, but we CAN build good movers!

References:

Program Considerations
Finding Time
Assessment: Linking Learning and Performance

Dr. Tan Leng Goh, Central CT State University

With the current trends in public health initiatives (i.e., Healthy People 2020) and promotion of physical activity (i.e., Comprehensive School Physical Activity Program), schools play an important role through health and physical education (PE) for the students to: 1) demonstrate the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness (National PE standard 3), and 2) recognize the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction (National PE standard 5). Furthermore, students who demonstrate competency in a variety of motor skills and movement patterns (National PE standard 1) and apply knowledge of concepts, principles, strategies and tactics related to movement and performance (National PE standard 2), may develop an interest in the skills learned within health and PE enabling continual lifelong participation in the physical activity and/or sport. While students’ learning is an important objective in the health and PE classrooms, assessing whether learning has occurred is equally important to ascertain whether health and PE standards are met through the curriculum. Learning that occurred in the health and PE classrooms can be measured and accounted for through thoughtfully designed assessments. Assessments can be measured quantitatively/objectively (e.g., number of laps in PACER test and score in soccer written test) and/or qualitatively/subjectively (e.g., score on rating scale on badminton performance).

Assessments in health and PE should focus on the four learning domains: 1) health-related physical fitness, 2) psychomotor, 3) cognitive, and 4) affective. Fitness test and fitness journals/logs are effective assessments to assess students’ learning in the health-related physical fitness domain. Checklist, rating scales and rubrics are assessments suitably used to assess specific skills within a sport unit and/or authentic settings (i.e., game play). For instance, a useful resource is the PE Metrics. PE Metrics is a standards-based assessment package that uses valid and reliable evaluation tools to measure student progress in cognitive and motor skills toward achieving the National Standards for PE (Fisette & Frank, 2012; Fox, 2012). Checklist is a time efficient assessment that can be used as a self, peer and/or teacher assessment. Written tests, exit slips, group projects, and homework can be used to assess students’ learning in the cognitive learning domain. Journals, reflective papers, and questionnaires are effective assessments to assess students’ learning in the affective domain (Nye, Dubay, Gilbert, & Wajciechowski, 2009).

The process of assessment begins with identifying or creating an instrument/tool to assess students’ learning. Whether the assessment is readily available (e.g., PE Metrics) or teacher-created, it is important to ensure that the assessment is aligned with the unit and lesson objectives. Following which, the teacher will conduct the assessments and record the scores for every student within the class. Clear and detailed evaluative criteria (e.g., 80% in the written test) within the assessments will assist the teacher in determining if student learning has met the unit/lesson objectives and grade level outcomes (SHAPE America, 2013). Assessments can be conducted at the beginning and throughout the unit as a form of formative assessment, as well as at the end of unit as a summative assessment. Pre-assessments carried out at the beginning of the unit provide the teacher with baseline information of students’ knowledge, skill competency and confidence level of the unit to be taught. Furthermore, pre-assessments can be used to classify students into different skill levels so that developmentally appropriate tasks can be designed for students at varying skill levels. Formative assessments throughout the unit can also be used to identify skill deficiency in certain areas within the unit and remediation can be provided for students to improve on the skills. Summative assessments provide the achievement and improvement that students have attained through the unit. Performance at the end-of-unit assessments can infer that learning have occurred within the students. Assessments provided throughout the unit can serve as a source of motivation for students to achieve the level of competency set out by the teacher. Student assessments can also be used by teachers to evaluate the effectiveness of the unit specifically and the program generally.

Given the wealth of the aforementioned resources available, teachers can select and/or create assessments by aligning the evaluative criteria with the health and PE standards, as well as grade level outcomes. Other considerations such as advances in technology (i.e., use of heart rate monitors and pedometers to measure physical
activity) can also greatly enhance the assessment experiences of teachers and students. Importantly, assessments that are thoughtfully created in health and PE strengthen the link between students’ learning and performance, which may have long-lasting implications with regard to student attitude toward future participation in physical activity beyond the PE curriculum.

References:


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CTAHPERD Student Leadership Conference – April 17, 2018

With heartfelt thanks to Student Advisor Dr. Catherine Berei and ECSU Student Representative Emily Burg for organizing a great event, over 40 students from CCSU, ECSU, and SCSU were in attendance. Keynote Speaker Chris Morrill, 2000 National Middle School Physical Education Teacher of the Year was a big hit!
The Mind Body Connection

Dr. Marybeth Fede, Southern CT State University
Carol Ciotto, Central CT State University

Introduction
Comprehensive school physical activity programs, CSPAP, (ShapeAmerica.org) or Physically Active School Systems, PASS, as referred to in Connecticut, (Ciotto & Fede, 2015) are strategies by which teachers can engage students in physical activity in the classroom, with one of the result being increased cognition. In order to utilize these types of strategies to their fullest, faculty need to understand the connection between the mind and the body. These types of programs not only enhance cognition, but ultimately can have a positive effect on childhood obesity. The effects of the mind body connection have been around for a long time (McKenzie & Sallis, 1996; Stone, McKenzie, Welk, & Booth, 1998; U.S. Department of Health and Human Services [USDHHS] 2000). More recently, some positive connections between fitness-based physical education and increased cognition have been researched (Ratey, 2008). In Naperville, Illinois, a revolutionary before-school fitness-based physical education program helped to put this school district of 19,000 children, first in the world in science, as well as significant scores in math and language arts (Ratey, 2008). There are positive relationships between physical activity and modestly improved cognition (Dwyer, Sallis, Blizzard, Lazarus, & Dean, 2001). Dwyer et al. (2001) studied Australian children between 7-15 years old and found that across age and sex, academic ratings were significantly correlated with measures of physical activity on specific components of fitness. This research points to the notion that regular physical activity, in particular aerobic exercise, is the best defense for everything from mood disorders to ADHD (attention deficit hyper-activity disorder) to addiction, to menopause, to Alzheimer’s disease, and needs to be reframed as benefitting the brain just as much, if not more, than the body (Ratey, 2008)!

CSPAP and PASS reinforce curriculum through movement, through such programs as the Active Schools (2017), ABC’s of Fitness (Katz, 2007) and Action Based Learning (Blaydes, 2000). Using interdisciplinary teaching strategies, such as these, and having a quality fitness-based physical education program could insure increased focus, retention, attendance, cognition, and fitness test scores. All of these positive effects translate into fitter, smarter students, leading to healthier active adults. A good understanding of the mind body connection, and various programs that are available, will help educators to meet and exceed national education standards. It will also contribute in producing students who have self-confidence and self-efficacy, along with positive social and emotional skills. Being physically active is necessary in order to produce healthy well-adjusted students and later on, active adults as well as, combating hypokinetic diseases and certain types of cancer (United States Department of Health and Human Services USDHHS, 1996-present).

A National Epidemic
A natural result of inactivity is obesity, which encompasses more than being overweight. It has a more severe and direct effect on one’s health. To be obese is to have a body mass index (BMI) at or above the 95th percentile. Falling into this category often creates a negative self- image. This in turn has a negative effect on academic achievement. This growing condition produces a critical demand for quality and daily physical activity and fitness-based physical education throughout the school day. It is natural, and the right of every student to be able to move. It is necessary that the goal of all educators is to achieve an overall improved community that is conducive to a child’s freedom and safety in physical activity for their health, well-being, academic achievement and social acceptance.

Today’s youth are considered the most inactive generation in history and according to the American Academy of Pediatrics: (Finklestein, 2004), adolescents who are overweight have an estimated 80% chance of being obese as adults; and, if overweight begins before age 8, obesity in adulthood is likely to be more severe. In addition, obesity kills more Americans each year than AIDS, cancer and injuries combined. At this rate, the current generation of children will not live as long as their parents. According to the CDC (2014), physical activity levels vary within the United States:

- About 1 in 5 (21%) adults meet the 2008 Physical Activity Guidelines.
- Less than 3 in 10 high school students get at least 60 minutes of physical activity every day.
- People who are physically active tend to live longer and have lower risk for heart disease, stroke, type 2 diabetes, depression, and some cancers.
- Physical activity can also help with weight control, and may improve academic achievement in students.
Inactive adults have a higher risk for early death, heart disease, stroke, type 2 diabetes, depression, and some cancers.

More non-Hispanic white adults (23%) meet the 2008 Physical Activity Guidelines for aerobic and muscle-strengthening activity than non-Hispanic black adults (18%) and Hispanic adults (16%).

Men (54%) are more likely than women (46%) to meet the 2008 Physical Activity Guideline for aerobic activity.

Younger adults are more likely to meet the 2008 Physical Activity Guideline for aerobic activity than older adults.

The benefits of being physically active, and specifically working on aerobic capacity, enable the creation of new neurological pathways, among other benefits, which leads to increased cognition, focus, and overall readiness to learn, not to mention, self-efficacy, and self-confidence. It is the intent of the authors, through this article, to help all educators to understand and be able to feel comfortable using the powerful tool of movement to enhance students’ physical, emotional, spiritual, and cognitive abilities. Although it is important that high quality fitness-based physical education programs exist within a school, it is only the beginning to solving the childhood obesity problem and how sedentary we as a nation have become!

Americans have a million excuses not to be physically active, with the number one reason being not enough time. Other barriers to full engagement include but are not limited to technology, multi-tasking, denial, self-deception and it’s easier not to! (CDC 2001) Educators need to understand the barriers and that it is not the stress that is bad, but rather the lack of recovery time that is not afforded to us or our students. Students need to be fully engaged. Stress is not the enemy, it is how one grows, gets stronger, and produces energy. It is only when one fails to manage the recovery period properly that problems arise (Groppel, 2011). In this day and age of smart phones, I-pads, and information at our fingertips, we are so busy multi-tasking and trying to handle multiple stimuli; that we never really fully disengage. This is what is hazardous to health and well-being. Making excuses and telling ourselves the wrong story may give us meaning and significance, but it prevents real change, becoming fully engaged and disengaged. A difference can be made, one student at a time. By understanding the barriers to full engagement, and including Gardner’s (1999) eight multiple intelligences, and Glasser’s (1998) five basic human needs in teaching is a great way to reach all the very different individuals that constitute a class.

Furthermore, Lengel & Kuczala’s (2010) framework for movement in the classroom, Blayde’s, (2000) action based learning, Katz’s (2010) ABC’s for fitness, brain breaks in the classroom, Gilbert’s (2000), brain dance, Ratey’s (2008), Naperville, IL model, and before and after school programs which lead to community involvement, are all available tools that can help achieve the mission. Armed with these tools, reframing the story, collecting data, and disseminating the information to classroom teachers, administrators, board of education members, parents and most importantly students is what has to happen in order to see real change.

Movement, Exercise & Physical Activity
What is the difference between movement, exercise and physical activity? According to Blaydes (2000) there are three distinctions of movement that need to be addressed when reviewing brain research: 1) movement, 2) physical activity, and 3) exercise. Movement is the navigation of one’s environment. Physical activity is any movement of the skeletal muscle that expends energy. Exercise is physical activity that is planned and repetitive, with an increase in physical fitness as the goal. The two aspects of movement that benefit learners most are physical fitness and use of kinesthetic activities to anchor academic concepts resulting in cognitive reinforcement. According to Blaydes (2000), “movement prepares the brain for optimal learning” (p. 2).

Early research dealing with physical activity and cognition showed that physical activity enriches the learning environment; physical fitness is positively related to academic performance, and aerobic fitness aids cognition (Diamond, 1998; Gage, 1999; Gardner, 1983; Jensen, 1998). More recent research has documented the positive benefits physical activity/movement and exercise, have on cognition. In 2008, Ratey introduced the world to Spark: The New Revolutionary Science of Exercise and the Brain. He began prescribing various types of physical activity and exercise to his patients as treatment for everything from anxiety, stress, and depression to Alzheimer’s disease. He also researched the effect of aerobic exercise on academic performance. With regular and prolonged aerobic activity, such as brisk walking or bike riding, new neurological pathways in the brain are created, which benefit old and young alike.

Movement differentiates instruction, increases retention, motivation, attention and engagement in the learning process, and should be utilized for its full potential benefits in both the classroom and in the gymnasium (Lengel & Kuczala, 2010; Ratey, 2008). “The research confirms that students perform better in school when they
are emotionally and physically healthy. They miss fewer classes, are less likely to engage in risky or antisocial behavior, concentrate more and attain higher test scores” (NASPE, 2011 p.1).

Exercise is also of extreme importance, as it improves learning on three levels: 1) it optimizes the mindset to improve alertness, attention, and motivation; 2) it prepares and encourages nerve cells to log in new information; and 3) it spurs the development of new nerve cells from stem cells in the hippocampus (Ratey, 2008). By addressing the need for more physical activity during the school day and its positive effect on cognition, attendance and behavior, society can begin to see the possibility of an end to the problems of childhood obesity, type 2 diabetes and declining test scores (Kelly, Kelly & Franklin, 2006; Cotman & Engresser-Cesar, 2002).

Implicit & Explicit Learning
According to Lengel and Kuczala (2010), two important keys to improved cognition for educators to understand are the difference between implicit and explicit learning and certain principles the brain seeks out. First, explicit learning occurs on a very conscious level, often through reading, lecture, listening, discussion and work sheets. Second, implicit learning involves more neural pathways and sensory cues, which allow the brain to learn more quickly and remember more accurately. Implicit learning often occurs through movement, life experiences and emotions, and is the preferred way for the brain to acquire information. The brain seeks novelty and likes to operate from concrete experiences. It tries to make meaning through questioning i.e., does this make sense? Emotions and the movement of the body and objects in the environment both contribute to an enhanced learning experience. Movement enhances the teaching/learning process in a variety of ways, including: improving brain function, increasing circulation, refocusing attention, enhancing episodic memory, reducing sitting time (which produces blood pooling and the release of melatonin), changing the brain chemically, providing breaks from learning, (as well as a motivational framework for learning and an opportunity for implicit learning), and stimulating neurogenesis (through prolonged aerobic activity). In addition, movement is the best available manager of state. State management refers to one’s ability to manage the brain and body’s physical, mental, and emotional states. By understanding the brains need to manage state the educator can better understand students’ limited attention spans, their need to self-regulate mood, and the mind/body state that influences the process of meaning making (Hannaford, 1995; Jensen, 2000; Katz, 2007; Lengel & Kuczala, 2010; Ratey, 2008). Knowing this information and all of the other benefits that are associated with movement substantiates the need for physical activity and movement in the classroom (Kuczala, 2010).

 Educators and administrators need to understand that from the time of birth we learned to roll over, crawl, walk, talk, and were given many accolades for these achievements. Upon entering school however, the tone changed and we were told to sit still and be quiet. This goes against everything our bodies need to do. Physical activity/movement, music, and novelty are relatively simple means to manage state, and help students make a much smoother transition to the very still and stifled environment in a school setting. As the teacher/facilitator it is important to understand and apply the five basic human needs (Glasser, 1965, 1998), the eight multiple intelligences (Gardner, 1999), and simple brain principles (Lengel & Kuczala, 2010) to the learning environment. Movement creates a joyful atmosphere in the classroom, and Kuczala (2010) provides a framework of movement for teachers to follow. He advocates six purposes for movement which include 1) preparing the brain, 2) providing brain breaks, 3) class cohesion activities, 4) support of exercise and fitness, 5) attaching kinesthetic activity to content and 6) movement-oriented content games (reviewing content). Overall, movement in the classroom helps to support relationships, relevance and/or meaning making, and rigor. Figure 1 outlines how to implement Kuczala’s framework for movement model in the classroom. By focusing on the needs of every individual student, there is a greater likelihood of improved cognition.

Figure 1: “Teaching Strategies for Active Learners: A Framework for Movement for Teachers”

1. Preparing the Brain: There is a connection between a well-developed sense of spatial awareness and abstract thinking. The young brain needs to activate this system so movement and cognitive growth can develop (Jensen, 2000). Another key in getting the brain ready to learn is proper hydration, and crossing the mid-line of the body. Cross lateralization games such as, “gotcha” and "interlocking finger find" help develop both sides of the brain; each side of the brain controls the opposite side of the body (Blaydes, 2000). Gilbert’s (2000) Brain Dance is composed of eight fundamental movement patterns we are programmed to move through...
from 0-12 months which wire the central nervous system. The dance uses tactile, visualization, vestibular development and cross lateralization all in one simple, fun activity that can be performed in limited space areas safely. This would be a great addition to the morning announcements to help reorganize the brain and get the body physiologically ready to learn! www.creativedance.org www.actionbasedlearning.com

2. Providing Brain Breaks: Shorter is always better. Brain breaks provide necessary content breaks, state management, re-focusing attention, getting up to avoid blood pooling and secretion of melatonin, and incorporating fun and novelty into a lesson. The following are a few examples you can use: Handshake Creation: stand up move around and greet as many people as possible with a new handshake, in the allotted time. Singles Gotcha: Find a partner and face them. Place pointer finger in partners palm and they do the same. On the teachers signal "go", each person simultaneously tries to grab the other person's pointer finger and pull theirs away. Rock Paper Scissors: Partners use this long time game to hone their addition, subtraction and multiplication skills. Instead of shooting rock paper scissors, the partners try to guess the combination of numbers thrown out by each individual (+, x, -). www.davidkatzmd.com

3. Class Cohesion: This serves to build relationship skills, teamwork, and cooperation, with a little friendly competition, when warranted, in a fun environment. Balloon Pop: 2 equal circles joined together by holding hands or interlocking elbows. The object is for the group to keep a balloon in the air and not let go of the person next to them. You may add more than one balloon. Group Juggle: A name learning game that establishes a pattern by always throwing to the same person, (calling their name) and receiving from the same person (thanking them by name), in a circle formation with the only rule being you cannot throw to the persons on either side of you. The teacher gradually adds more objects and the class is now juggling! mkuczala@thertc.net The Kinesthetic Classroom.

4. Support of Physical Activity, Exercise, & Fitness: Ratey (2008) gives you all the support you need to promote physical activity, movement, and aerobic exercise, not only in school, but district wide: Aerobic exercise was as effective as antidepressants in one landmark study. The Naperville Illinois fitness program helped put one U.S. school district of 19,000 students first in the world in science. Aerobic exercise sparks new brain-cell growth. Ratey, J.A. Spark: The Revolutionary New Science of Exercise and the Brain.

5. Teaching New Content: Learning new content and trouble-shooting problem areas in math, science, english and geography, such as the water cycle, language rules, slap counting, and map reading; www.actionbasedlearning.com (Jean Blaydes); Finding the circumference and diameter of a circle, understanding the sugar-insulin-insulin resistance relationship; mkuczala@thertc.net The Kinesthetic Classroom; www.activityworks.com for grades 1-3; www.movingandlearning.com Leaping into Literacy.

6. Reviewing Content: A silent review game that involves many different content areas while students get up and move to exchange questions with other students. An active, joyful way to review content. Many educators love the idea of students being active, while on task, and quiet all in one activity. mkuczala@thertc.net.

National Standards for Physical Activity
It can be challenging to motivate students, especially when it comes to a lifestyle change. The most effective way to instill change is to make it simple and attainable. By imbedding physical activity as a part of the school’s culture before, during and after school, children will more likely adopt it as a part of their everyday behavior. By providing opportunities for physical activity throughout the school day, students can bring this new behavior home and out into the community so we can all learn the importance of healthy behavior while improving cognition and academic success.

The goal is for all children to get at least 60 minutes of moderate to vigorous physical activity every day, with at least 30 minutes attained at school (CDC, 2014; ACSM, 2000). Schools are a key setting for students to get their 60 minutes of physical activity, given the amount of time
spent there. Schools can provide a variety of strategies and approaches to help students become more physically active, that include quality physical education programs and opportunities within the school that increases access to physical activity for all students to be physically active not just during physical education class but throughout the day. Students can get most of their physical activity through a quality fitness-based physical education program that is complemented by activities before, during, and after school, recess, physical activity breaks, intramural programs, interscholastic sports, and walking or biking to and from school. Schools play a key role in shaping the social and physical development of their students. Let’s pull out all the stops to give children the best chance to be smart, healthy contributing members of society, by providing them with a truly interdisciplinary, holistic education.

**Learning Styles**

Students prefer processing and retrieving information in a variety of ways that educators identify as learning styles. Being informed of Gardner’s (1999) theory on Multiple Intelligences enables educators to adjust teaching methods to better serve each individual learner. Verbal-linguistic learners use words effectively and have the ability to manipulate the structure or sounds of language. Naturalistic learners are good in science, love working outdoors and are especially sensitive to environmental issues. Interpersonal learners have the ability to perceive and discriminate between the feelings and moods of others in a variety of interpersonal areas. Logical-mathematical learners are sensitive to logical patterns and relationships involving both cause and effect. Intrapersonal learners have good self-knowledge and the ability to adapt based on that knowledge. Visual-spatial learners are sensitive to color, line, space, shape, form, and the relationships between these elements. Musical-rhythmic learners have the ability to perceive and discriminate amongst musical forms and are sensitive to rhythm. Bodily-kinesthetic learners use their whole body to express themselves and have specific physical skills such as, coordination, balance, strength and speed. Once educators realize and embrace multiple ways in which students learn, they can effectively reach more students and concentrate on improving both predominant and non-dominant intelligences.

There are five basic human needs according to Glasser’s (1965) reality therapy and choice theory (Glasser, 1998). Understanding these needs and the role they play in improved cognition helps to narrow down the broad undertaking of educators. Glasser believes that all behavior is purposeful and motivated by one or more of the following: survival, freedom, belonging, power, and fun. In thinking about the five basic human needs, their common bond is that they can all be met by movement! Survival speaks to fight or flight and survival of the fittest. Freedom suggests that there are no bodily constraints limiting the ability to get up and move. Belonging is the feeling of being a part of something and the ability to feel loved. Power is the strength or control exercised upon the body, in turn, the destiny of the individual. Fun speaks for itself; your first bike ride, running like the wind and dancing! It can be agreed that these are definitely basic human needs embodied by all and these needs plays a major role in human behavior and personality.

**Conclusion**

In conclusion students are not getting as much physical activity as is there right! Research dictates that it is important to establish good physical activity habits as a child, early on, so the effect will be to nourish and flourish the mind and body as adults! It is critical that we take the steps now to educate and make a change in students’ lives to help them lead a healthier, more productive life. According to the National Association of Sport and Physical Education (NASPE, 2011), physical activity can produce physical, psychological, and social benefits and children who are inactive are more likely to become inactive adults. It is critical that steps are taken to this end. Without change this generation of children is slated to have a shorter lifespan then their parents (Olshansky, 2005).

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To meet our mission and values your leaders accomplished the following:
- Communicated with members through one print issues of The Bulletin, two electronic issues of The Bulletin, the weekly electronic newsletter, webpage, Facebook, four Pinterest Boards and Twitter
- Offered professional development through the Fall Conference, Summer Workshop, Student Workshop and Regional Workshops
- Communicated with former members and potential members to increase membership
- Advocated for healthy lifestyles by promoting the Jump Rope for Heart and Hoops for Heart programs and the many benefits of community service to participants
- Advocated for healthy lifestyles by promoting Project A.C.E.S. & provided 50 schools with a colorful banner
- Advocated for quality health education and physical education and funding for ESSA by participating in Speak OUT Day on Capitol Hill in Washington, DC.
- Supported professional members with Professional Development Grants to attend the SHAPE America Eastern District Conference and SHAPE America National Convention
- Supported members with Mini Grants to carry out special projects to improve their programs

We are most appreciative of the following officers who have assisted in meeting our mission and promote our values: Amanda Amtmanis, John Battista, Ellen Benham, Catherine Berei, Jan Bishop, Karen Bosworth, Emily Burg, Katie Burke, Christie Cardinale, Ann Marie Colebrook, Cindy Dysenchuk, Mike Ginicola, David Harackiewicz, Kathy Nauber, Katherine Leslie, Kathy Marone, Jennifer Marrone, Jen Mitteness, Kathy Nauber, Steve Pernal, Alicia Potash, Kris Radke, Ashan Sathyalingam, and Eric Uthgenannt. Additional members who have served this year: Barbara Brooks, Steven Dreger, Marybeth Fede, Laura Fiore, Amy Gagnon, Lisa Galske, Shirley Hughes, Ellen Joly, Doug Marchetti, Jason Melnyk, Tricia Pandolfo, Robin Schemansky, Janice Skene, Carolyn Vanacore, Linda Wooster, and Diane Wright.

It is a pleasure to work with all of these dedicated professionals and countless others who have volunteered their time this year.

It is my pleasure and honor to serve you as Executive Director of CTAHPERD. Please contact me with questions, suggestions, interests and applications at ckapral@ctahperd.org.