Instant Recess: Getting our Instant Gratification Society Moving, One School at a Time

Abstract

Incorporating brief, structured group physical activity breaks into the daily school day routine is an environmental intervention that is widely applicable, requiring minimal upfront or ongoing costs and offering ready exportability and cultural adaptability. *Instant Recess*® is a turnkey activity break intervention delivered by electronic media and featuring simple movements based on sports or dance traditions. The intervention has been developed, evaluated and disseminated through public-private partnerships involving state and local government, foundations and non-profits. The utilization of brief activity breaks in advancing population physical activity may be equated with the role of smoking bans in galvanizing tobacco control.

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Introduction

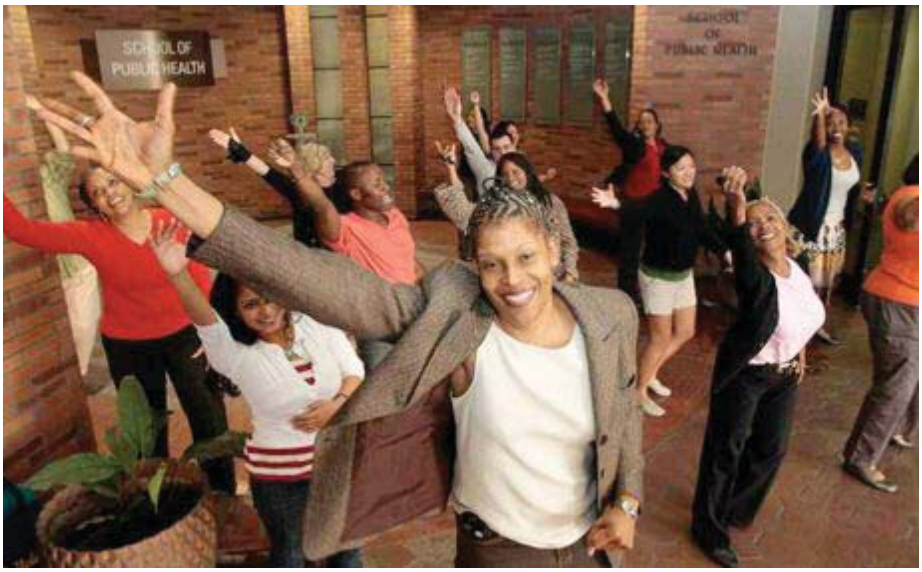
Environmental approaches address the external factors that make it difficult to translate healthy intentions into action. School settings, where youth spend half of their waking hours, are prime targets for intervention (Gonzalez-Suarez et al., 2009; Naylor & McKay, 2009). A recent Cochrane review of school-based physical activity programs showed that such interventions have resulted in increased duration of physical activity, decreased TV viewing time, and improved aerobic capacity and blood cholesterol (Dobbins et al., 2009). Distributing educational materials and modifying school curricula to incorporate more physical activity were the minimum changes needed to realize a significant impact (Dobbins et al., 2009).

The modest nature of the changes required to produce a meaningful impact is a particularly promising finding for schools in low-income communities. These schools have borne the brunt of the economic downturn as reflected in PE cuts and crumbling facilities; they have limited capacity for full implementation of the coordinated school health approach (e.g., PE specialists, adequate playground supervision and space configured to maximize activity, comprehensive staff wellness).

Incorporating brief structured group physical activity breaks into the daily school day routine is one such environmental intervention, requiring minimal upfront or ongoing costs and offering ready exportability and cultural adaptability. Research has demonstrated improvements in individual behaviors and health outcomes (e.g., attenuating excess weight gain, lowering blood pressure, increasing bone density), as well as organizational benefits (improved academic performance, longer attention spans, fewer disciplinary problems) (Barr-Anderson et al., 2010). Activity break interventions with published evaluation data include *Take 10!*, *Energizers*, *Making the Grade with Diet and Exercise*, and *PASS & CATCH*. The delivery system for these interventions generally requires that teachers work the activity into their lesson plans as they prepare for class, that they lead the activity themselves, or both. A similar intervention model with a different delivery system, *Instant Recess*® is turnkey or "plug and play"—technology mediated, music driven, and intended as a mental respite for students and teachers (Yancey et al., 2009). This paper is an excerpt of *Instant Recess*: Building a Fit Nation 10 Minutes at a Time (Yancey, 2010) which provides a focused review of the literature on school-based activity break interventions, describes the development and evaluation of *Instant Recess*, and argues that activity breaks in schools are a critical part of a strategy for re-integrating physical activity into daily routine population-wide.

Review of the Literature

Physical Activity Across the Curriculum (PAAC), a federally funded University of Kansas study of a variation of *Take 10!*, successfully engaged 60 to 80 percent of elementary school non-PE teachers in conducting 10-minute exercise breaks in twenty-four low-income public schools in three eastern Kansas cities: Kansas City, Topeka, and Lawrence (Honas et al. 2008; Donnelly et al. 2009). While *Take 10!* emphasizes being active while learning, PAAC focuses on making the activity integral to the lesson. Study staff provided teacher training in one six-hour, off-site in-service session at the beginning of each school year. Interestingly, from the standpoint of *Instant Recess*'s innovation, music to use in leading the exercise sessions was one of the most frequent requests in the staff training sessions—they began distributing oldies CDs popular with both teachers and students. The gradual increase in the number of teachers engaged each year and number of minutes provided reflected a progressive cultural norm change (an average of 70 minutes a week of activity,



Dr. Antronette K. Yancey will be a Keynote Speaker at the 2011 CAHPERD State Conference in Monterey.

and nearly 50 percent of teachers achieving the goal of 90 to 100 minutes a week after two years). The PAAC increased the kids' physical activity levels, in school and outside school—on both weekdays and weekends. This finding is particularly significant because, like other recent evidence, it contradicts the concept of "compensation": some have argued that restricted activity during the school day because of less recess and PE may be offset by compensatory increases outside school. The converse is that adding structured physical activity may lead to decreases in other venues, but that's not consistent with the PAAC data.

PAAC also improved academic achievement in terms of reading, math, spelling, and composition scores. When the investigators looked specifically at the nine of fourteen intervention schools that averaged more than 75 minutes of active lessons weekly, students gained less weight than those in control schools. Not surprisingly, when teachers were active with the students, student physical activity levels were significantly higher. Earlier studies of *Take 10!* have also demonstrated the feasibility and utility of this approach in regularly engaging students and teachers in exercise of sufficient intensity and duration to count toward the total recommended by the Centers for Disease Control and Prevention. For example, James Stewart and his colleagues (2004) found that third through fifth graders burned 27 to 36 kilocalories and racked up step counts of eight hundred to a thousand with each break.

Given the incursion of sedentariness and obesity into younger and younger age groups, the *Take 10!* folks have developed *Animal Trackers,* an adaptation of their active lessons for preschoolers (Williams et al. 2009). They recently published process data from a pilot test of the intervention at Head Start sites in New Mexico, showing that they were able to deliver an average of 47 additional minutes of structured physical activity per week (4.1 sessions per week averaging 11.4 minutes per session).

Energizer activity breaks (Mahar et al. 2006) along the lines of *Take 10!* used grade-appropriate learning materials, involved no equipment, and required little teacher training (one 45-minute training session). Not only were kids more active during the school day, but on-task behavior improved by 8 percent overall after the *Energizer* breaks and by 20 percent among the least on-task students (those who were on-task less than 50 percent of the time before *Energizer*s were instituted).

A different model from *Take 10!* of delivering activity breaks involved three basic school environmental changes: (1) restructuring the school day to provide 15 minutes of teacher-led activity each morning to start the day, (2) access to a free breakfast program for all students to promote nutritionally sound practices, and (3) a reversal of the order of lunch and recess. The last strategy, Recess Before Lunch, was developed to capitalize on the body's craving for water after exertion—studies have found less "plate waste," especially of fruits and veggies, when kids eat after moving and sweating than before. Adopting these three changes produced a 67 percent decline in nurse visits, a 58 percent decrease in disciplinary referrals, and an increase in academic performance such that the school improved from passing two of the state achievement tests to passing all five after four years (Sibley et al. 2008).

PASS & CATCH is yet another school model. Coordinated Approach to Child Health (CATCH) is one of the pioneering activity-focused physical education upgrades as a part of a school-wide environmental change approach. *PASS & CATCH* adds brief and enjoyable activity breaks folded into the in-class didactic curriculum that has been found to improve math scores for all third and fourth graders and to improve both reading and math scores for poorly adapting students (Murray 2009).

The Instant Recess Concept

Instant Recess was designed to be minimally disruptive to already stretched budgets and constrained and overscheduled curricula. Brief structured bouts of music-driven group dance and sports moves are integrated into school routine, for example in transitioning from lunch to didactic coursework or between subjects. The concept was adapted from a workplace intervention (Yancey et al., 2004). In order to engage youth, athletes were featured leading exercises and communicating activity-promoting and healthy eating messages. Capturing these breaks permits correct and consistent demonstration of the movements and allows athletes to model healthy behaviors without the need for in-person appearances in the classroom or playground.

Studies have demonstrated that athletes are the second-largest category of role models among adolescents, mostly boys—about one in five—behind family members (Yancey, Siegel, and McDaniel 2002). Having an athlete as a role model was comparable to having other types of "figure" role models (those not personally known to the teen) in its positive correlation with self-esteem, ethnic identity, and grades. Among white boys in single-parent homes, choosing a sports figure correlated with decreased drug use. Young people who emulate athletes tend to have higher physical activity levels.

UCLA analyses of California Health Interview Survey data showed an association between teens identifying an athlete as a role model and their engaging in a spectrum of protective behaviors, including exercising regularly, eating five or more daily servings of fruits and vegetables, not smoking or drinking alcohol, and not fighting at school (Yancey et al., 2010).

The newly formed nonprofit Professional Athletes Council (PAC) adopted *Instant Recess* as its signature project in 2006. PAC was founded by an NFL kick-off returner and an NBA forward, and managed by a businessman who ran the philanthropic foundations for many of the athletes. Several of these foundations targeted obesity, diabetes and childrens' fitness, but were strictly locally focused. These athletes joined together to leverage their celebrity to draw national media attention, create a sensation (word of mouth, or buzz), and drive social norm change to fight childhood obesity.

PAC, the California Department of Public Health, and UCLA produced a prototype CD and DVD, the Rossum Kick-Off Lift Off! to target sports events and schools, with the aim of making prolonged sitting as socially unacceptable as drinking and driving, or smoking. We shot some of the footage for that first *Instant Recess* DVD at the biannual California Childhood Obesity meeting in Anaheim in January 2007, and watched attendees ignore the keynote address by a well-known former California state health officer to line up in the back of the auditorium to get the featured athlete's signature. We trademarked *Instant Recess* at the time we presented it to executives of one of the national professional sports leagues to maintain the concept's scientific integrity and intent to engage the least active individuals. The Los Angeles County Department of Public Health and the University of Pennsylvania–based African American Collaborative Obesity Research Network participated in vetting and testing various aspects of the *Instant Recess* adaptation, and plans for its implementation and evaluation. We also tested the *Instant Recess* concept and the first CD-DVD with children attending a pro-athlete sponsored community fitness event in August 2007 to document their interest, willingness to participate, and accelerometer-measured levels of moderate to vigorous physical activity during the break.

Instant Recess Leaves the Nest

The more formal dissemination and evaluation of *Instant Recess* to schools and sports organizations began with early adopters captivated by the athletes' charm and perhaps the supportive scientific data at presentations or lectures. The early progression was from individual initiatives at isolated schools in Los Angeles, Memphis and Phoenix to a pro franchise, the San Diego Padres, and a school district, Winston-Salem/Forsyth County Schools in North Carolina.

Champion School: Testing the Feasibility of Instant Recess

Instant Recess was pilot-tested during the 2007–2008 school year at a charter that requires daily PE in Phoenix, Arizona, serving a low-income, ethnic minority student population. The school introduced *Instant Recess*, in addition to its daily PE classes, first to half of the grade levels—K, 2, 4, and 6—at the beginning of the fall semester, and then to the rest at the beginning of the spring semester. They hosted a "Think You Got Moves?" contest, submitted a DVD of the three finalists' entries, and performed their moves pro athletes attending the 2008 Super Bowl. The principal commented that "our students and teachers love [*Instant Recess*] and are getting quite good at it." The head coach and PE instructor, a former UCLA football standout, observed that kids exposed to *Instant Recess* learned exercise routines faster, and performed better on skills and endurance tests such as wall climbing. Representative teacher and student comments are presented in Table 1.

Winston-Salem/Forsyth County Schools: Bringing Instant Recess to Scale Districtwide

The introduction of *Instant Recess* to the Winston-Salem/Forsyth County Schools (WSFCS) was timely because of a two-year-old regulatory policy of the North Carolina Department of Education mandating a minimum of 30 minutes of moderate to vigorous physical activity daily for all K–8 students (combination of PE, recess and intra-curricular activity breaks). WSFCS strongly encouraging schools to surpass this mandate and provide up to 225 activity minutes per week. WSFCS schools were struggling to meet the requirements, and teachers and administrators often conveyed that fitness was not their responsibility. *Instant Recess* was introduced at a School Health Advisory Council meeting by a Wake Forest University professor as a "do-able" alternative to overcome this perception. The school superintendent quickly bought into the idea. UCLA collaborated with the professor and the WSFCS in securing foundation funding for an initial evaluation of whether *Instant Recess* helped schools adhere to the health policy and whether students would actually participate. Evaluation study participants included students in seven elementary schools and eight after-school programs. Pre-and post-implementation data showed significant improvements in participation in moderate to vigorous physical activity among students and a significant increase in on-task behavior (the percentage of students who were paying attention in class), compared to controls.

A secondary and complementary aim of the Winston-Salem leaders was to make exercise breaks an integral part of high school, community college, and university sporting events to embed the intervention in the local culture and increase its diffusion and dissemination. Our UCLA CDC disparities center provided a seed grant for this purpose to augment the school day-focused funding. However, because of a cascade of administrative changes and bureaucratic snafus, release of CDC funds was delayed and full implementation has yet to be reached. In conjunction with an earlier Winston Salem project targeting black churches to incorporate *Instant Recess* breaks, the eventual goal is to include *Instant Recess* in enough venues so that metro area residents (population about 300,000) have an opportunity to participate in at least one group activity break every day.

San Diego Padres' FriarFit initiative: Developing a Pro Sports Model for Instant Recess

In 2008, the San Diego Padres became the first professional sports team to adopt *Instant Recess* and other organizational policy and practice changes in its routine

Table 1: Participant Comments on Instant Recess Implementation

Teacher	Student
It's a good use of time because it gets kids excited, gives them a boost of energy, wakes them up. . . ."	"I think the Instant Recess is good for stretching out and exercising the kids to keep our muscles strong. I think it would be good to have all the kids around the world do it."
"Girls, especially, perform better in physical education because Instant Recess exercises build their confidence."	"I like the modified jumping jacks because we don't have to pick up our feet!"
"Kids are taking ownership—bringing their own music and trying out moves."	"Makes me feel strong!"
"I really enjoy doing the exercise with the students. I feel more energized."	"I think it's cool!"
"Instant Recess is a great activity for the students. They get excited and can't wait to do it each day. It even helps students work together as a team and help each other out."	"I love the Instant Recess because it gave me energy throughout the day."
"Students never let us forget to implement Instant Recess."	"When we did the Instant Recess I thought it was good because we got to work out but we did not get that sweaty."
"They correct each other if they are not doing it right and teach Instant Recess to new students."	"The DVD was fun because you kept marching the whole time, but I wish we could learn new moves after a while."
"Kids are taking ownership—they want to dance to it, do it double time and infuse Instant Recess with their own moves."	"The music was good and made me feel fun and silly when I was doing the exercises."
	"A lot of fun. It was way better than sitting down in class all of the time."
	"I think that it would be awesome if we kept it going, and I think that none of them were too hard."
	"It is fun to do in class rather than outside."
	"I think other schools should do it so they can become more active."
	"Enjoyable. The part I like most was all of the moving around."

operations, in partnership with The California Endowment health foundation and UCLA, as a part of a broad-based childhood obesity prevention initiative, FriarFit. UCLA created and choreographed an *Instant Recess* break for the initiative led by a team vice-president and baseball Hall of Famer, with nine baseball moves representing each of the nine innings in baseball, e.g., the "batter's box" and the "grounder." *Instant Recess* breaks were led by the club's Pad Squad—and by a celebrity or Padres player during the pregame shows at family-focused Sunday games and, on occasion, at other youth events, e.g., as a warm-up at baseball clinics.

The Padres also produced and showed public service announcements featuring players, cheerleaders, and former players on the jumbo screens during games and on the team's cable network affiliate.

During the pilot season, UCLA and the state health department provided training, resource materials, technical assistance and support, and incentives to 39 teachers and administrators from economically challenged local school districts to conduct the in-class breaks and to mobilize school wellness committees to advocate for physical activity promotion strategies. Those included recess before lunch and standards to require at least 50 percent of physical education time in moderate to vigorous activity. Ten nutrient-rich items were upgraded or added to the ballpark menu, including sweet-pepper hummus with baked pita chips, fresh fruit cups, yogurt parfaits, Asian salads, and grilled veggie dogs and burgers on whole grain buns. An informational webpage with its own link was created, from which the FriarFit *Instant Recess* break could be streamed. Media coverage included several TV and radio networks, along with local newspapers. The team was given a leadership and community service award by the county board of supervisors to highlight national Physical Fitness and Sports Month.

During the second season, teacher training sessions were hosted at the ballpark and an interactive website was launched with plans for web-based interscholastic competitions for such prizes as game tickets or visits by players or cheerleaders to lead *Instant Recess* breaks on site. While FriarFit continued and fan participation grew throughout the 2009 and 2010 seasons, addition of new components was suspended because of an ownership change and the economic downturn.

Passive Diffusion and Active Dissemination of Instant Recess

Major League Baseball's national office requested the FriarFit materials and documents as a part of the R&D of MLBFit. Some teams began implementing initiatives similar to FriarFit during the 2009 season. For example, the LA Dodgers added some of the same healthy food items offered by the Padres. They also included "follow along exercises" broadcast over the huge DodgerVision screen to engage children and willing adults, but this component was abandoned during the 2010 season. Without the player involvement and promotion, embedding team identity into the exercises and cheerleader- and celebrity-driven engagement of fans, there was little participation.

The WNBA Los Angeles Sparks signed on to pilot the project during the 2009 season, developing SPARKing Motion in conjunction with the Los Angeles County Department of Public Health and UCLA. Assisting in the team's recruitment, the Sparks' president knew one of the Padres' former executive vice presidents who was instrumental in getting FriarFit off the ground. In August 2009, the Sparks hosted the first in-game *Instant Recess* break during their half-time show with political and public health leaders working out on the floor with their two cheerleader groups, the SparKids and Ole Skool Crew, also featured in the DVD. The SPARKing Motion *Instant Recess* break consisted of

basketball moves created for ten of the players on the active roster, e.g., the (Tina) "Thompson Tip-Off" and (Candace) Parker "Power Jam." One thousand *Instant Recess* audio CDs were distributed that night to the crowd at the Staples Center.

Implications

New ways to increase physical activity across a wide range of settings must be identified, and brief activity breaks may be implemented almost anywhere. Captive audiences that may be engaged in such breaks are ubiquitous. For example, food or beverage refreshments are usually offered at work, religious and social functions and gatherings, and hosts would be considered inhospitable were such refreshments not offered. Yet there is no penalty for cooping people up for long periods, nor is there much support for systematically interrupting prolonged sitting—it's normative! Rarely are attendees or guests "refreshed" with brief activity bouts or "snacks." Activity snacks are cheaper to provide and just as necessary to health and well-being as nutrient-rich foods, but there is no strong biological drive like hunger to prompt people to move.

Pushing people to be a little more active on a regular basis can foster the daily personal and professional decisions ultimately necessary to increase communitywide physical activity participation and change social norms. We must be strategic in leveraging existing resources and focusing efforts on environmental changes that may be broadly adopted, and schools are critical bulwarks in driving these changes. This may reduce activity disparities, increase activity levels population-wide, and create the social norms and political will to drive permanent activity-promoting changes to the built environment (Yancey, 2009; Yancey and Sallis, 2009), much as smoking bans galvanized the tobacco control movement. Some investigators have asserted and argued that policy change precedes norm change (Swinburn, 2008). History suggests otherwise, however, e.g., imposition of smoking bans as an organizational and regulatory practice change long before legislative mandates (Messer et al., 2007). Nudging people to be more active in small doses may generate the visibility and political will to make critical but difficult and costly built environmental investments more tenable in the long run.

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CALENDAR OF EVENTS 2011

Jan 14-15
CAHPERD Board of Directors. *Westin Hotel, Pasadena. Contact: CAHPERD, 916-922-3596*

Jan 29
Early Childhood and Elementary Physical Education Workshop. *Crescent Elementary School, Suisun City, CA. Contact: Cindy Lederer, cindyled@cssac.net; 707-980-2966*

Feb 2
25th National Girls & Women in Sports Day. Play, Believe, Achieve! *Contact: NAGWS, www.aahperd.org/nagws/; nagws@aahperd.org; 703-476-3452*

Feb 6
CAHPERD Super Bowl Party. *Sacramento. Shenanigan's, 705 J Street, Sacramento, CA 95814. Contact: CAHPERD, www.cahperd.org; reception@cahperd.org; (916) 922-3596.*

Mar 10-13
2011 CAHPERD State Conference, Learn It, Do It, Live It! It Happens in Monterey! *Monterey Conference Center & Portola Hotel and Spa. Contact: CAHPERD, 916-922-3596; www.cahperd.org*

March 29-Apr 2
AAHPERD 126th National Convention and Expo. Oceans of Opportunity. *San Diego. Contact: AAHPERD, www.aahperd.org; conv@aahperd.org; 1-800-213-7193*

May 21-22
29th Annual Southwest Dance, Movement and Acro-Sports Workshop, *Palm Springs Convention Center. Contact: CAHPERD, www.cahperd.org; reception@cahperd.org; 916-922-3596*

July 9-16
61st Annual California Physical Education Workshop. *Cal Poly, San Luis Obispo. For more information, visit www.peworkshop.com*

July 15-24
65th Annual Physical Education, Athletic Coaching & Health Workshop. *Cal Poly, San Luis Obispo. For more information, visit www.peachworkshops.com*

July 19-24
37th Annual Dance & Movement Workshop for Educators. *California State University, Sacramento. Contact: Sher Edgar, edgar@centerusd.org*

July 24-27
19th Annual California Middle School Physical Education Workshop. *CSU, Fullerton. For more information, visit. www.cmspew.org*

July 24-29
Cal Poly Elementary Physical Education Workshop. *Cal Poly, San Luis Obispo. For more information, visit www.epew-cp.com.*