National Association for Kinesiology in Higher Education

SPECIAL EDITION

2014 NAKHE Collaborative Conference (San Diego, CA)

The Chronicle of Kinesiology in Higher Education

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Introductions

2014 NAKHE Collaborative Congress

Steve Estes, NAKHE President

This issue of the *Chronicle* is devoted to the 2014 NAKHE *Congress*, the annual NAKHE conference that served as a break-out moment for our organization. The 2014 NAKHE *Congress* was supported by five of our sister academic kinesiology societies, the acronyms familiar to most of us in NAKHE and which are spelled out here for the record. Participating in the *Congress* were the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD); the American College of Sports Medicine (ACSM); Association Internationale des Ecoles Superieures d'Education Physique *(AIESEP);* the American Kinesiology Association (AKA); the National Academy of Kinesiology (NAK), and of course NAKHE. The *Congress* was the result of three years of work by NAKHE leaders who were interested in wrestling with a late-20th century problem: the field of kinesiology is better off united than it is divided, but the forces of contemporary higher education combined with university roles and rewards systems tend to divide us. Most of us in NAKHE agree with American founder Benjamin Franklin when he said (at admittedly a much more serious moment at the signing of the Declaration of Independence), "We must all hang together, or assuredly we shall all hang separately." In an effort to make sure that none of us see any disciplinary or professional society gallows, NAKHE took the initiative and worked to pull together our national and international kinesiology leaders and put us all under one roof for a single event. It worked. Spectacularly.

The *Congress* was an idea put forward by NAKHE past-president Leah Fiorentino, and NAKHE leaders Betty Block, John Charles, Ron Feingold, Jackie Lund, John Massengale, Mike Metzler, Camille O'Bryant, Richard Oates, Carrie Sampson-Moore, and I immediately jumped on board. Together we developed the idea in rough draft form at the 2011 NAKHE Conference in Clearwater Beach, Florida. Shortly thereafter NAKHE's Board of Directors approved the idea of the *Congress* and subsequently threw all available resources at this idea. We really weren't sure of how we could go about convincing our sister societies to join in, but that was a minor detail. This was a windmill worth tilting at!

The purpose of the *Congress* became twofold: it was an effort to get leaders of our sister societies all in one place to discuss common issues, and it would provide an opportunity for NAKHE to re-establish its place as one of the leading kinesiology associations in higher education. With these twin missions in mind, NAKHE leadership appointed Mike Metzler to liaise with other interdisciplinary associations in our field to organize the *Congress*. Mike was particularly well suited to this role: he is a member of NAKHE (Mike is a NAKHE past-president, our current *Quest* editor), a fellow of NAK, and a fellow of AAHPERD's *Research Consortium*. As a result he was very well positioned to persuade leaders of our sister societies to participate in this historic effort.

NAKHE hosted the *Congress* during its regularly scheduled annual conference time by adding one additional day to host the *Congress* round tables and discussions. Betty Block, vice president of NAKHE and *Congress* manager, organized all of the events, the program, the site development, and after-hours activities. The Bahia Resort Hotel was the site, and it the setting was magnificent – walks on the beach and the bay, all of the *Congress* events, socials, and the usual NAKHE networking were held in gorgeous San Diego weather. As anyone who has run such an event will tell you, it's nice when the weather cooperates. The only glitch was a terrible winter storm that stranded about 10 of the 185 participants.

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2014 NAKHE Collaborative Congress, *continued*

As mentioned above, Mike Metzler, past NAKHE president and NAK member, along with a leaders from AAHPERD, ACSM, AIESEP, AKA, NAK, and NAKHE, created the topical strands that were addressed at the *Congress*. This group also selected the strand leaders, the kinesiology leaders who presented the major themes of the *Congress*. Mike Metzler served as the chair of the program selection committee. Of particular note was the contribution by our sister society American Kinesiology Association, led by Wojtek Chodzko-Zajko. Wojtek was the first to support the *Congress*, and the other institutions were soon to follow. Strand leaders included the following kinesiology leaders:

- Dr. Karen DePauw, Virginia Tech – Kinesiology Faculty for the 21st Century
- Dr. Wojtek Chodzko-Zajko, University of Illinois Urbana-Champaign – Adapting Kinesiology Curricula for the 21st Century
- Dr. Sharon Stoll, University of Idaho – the Roles and Responsibilities of Kinesiology Regarding Sport
- Dr. Jerry Thomas, University of North Texas – The Public Face of Kinesiology in the 21st Century
- Dr. Patty Freedson, University of Massachussets/Amherst – Reaching Beyond the Walls
- Dr. Scott Kretchmar, Penn State University – Keynote Banquet Speaker and Moderator

Now that it is over, one can ask, "Was it worth it?" Like the Adelphi congress conceptualized by William Anderson in 1885, and the 1889 Boston Conference organized by Mary Hemenway and Amy Morris Homans, the 2014 NAKHE *Congress* took a stand on what it means to be a field. In short, if we don't meet together at least occasionally then it is impossible to argue that we have anything in common. Well, we met, and such a simple act is, in itself, historic. We can now work toward a discussion of what the field is, and what it does. No matter what the answers to these problems are, we are now in a better position to find out what they are. Kinesiology has changed much in the last 130 years – indeed, the word "kinesiology" did not exist when the 1885 Congress was held. We are now in a better position to talk to each other and create a future.

The papers in this issue of the *Chronicle* speak to the theme of the 2014 *Congress*. Obviously not all of the papers given at the *Congress* can be included in one issue. But under Editor Britt Johnson's leadership we will give it the old college try. It is hoped that the effect of the meeting will be felt for many years to come, and whatever the effect we will record it in these pages. Perhaps we will all meet again, in one place and led by NAKHE. If this comes to pass then NAKHE will have led the way.

Published Presentations

The Efficacy of Exergames in Online Physical Education

Brian J. Kooiman and Dwayne P. Sheehan

Abstract: With the widespread adoption of the Internet, new online synchronous and asynchronous learning and teaching practices have quickly evolved to take advantage of this medium. One reality of the rapid transition to online learning is that it has outpaced research into 'best practice'. The rush towards online courses has created an urgent need for research into online learning models, delivery methods, and curriculum content modifications.

Research into online physical education (OLPE) has lagged even farther behind. Without proper evaluation, teaching physical education (PE) online may fall short of robust traditional curriculum models. Most secondary OLPE courses focus on the cognitive pieces of the curriculum or to a lesser degree, fitness for life. The omission of the physical, social and emotional parts of the curriculum from OLPE has created a rift in the understanding, growth, and development of students who take OLPE courses, especially those whose only PE instruction is online. There is clearly a need for an updated process that addresses these curricular concerns. Recent research into exergames played over the internet may be a first step towards a robust researched curriculum in OLPE.

Introduction

The internet is a relatively new technology that has already impacted the way content is delivered to students. Internet connectivity makes new types of learning and courses available that were not even imagined in the past. The thought of a comprehensive curriculum in physical education while at home may not have been on any visionaries' horizon. The internet has changed online physical education (OLPE) from an oxymoron (Buschner, 2006, Daum & Buschner, 2012, Mohnsen, 2012; Yang, Smith & Graham, 2008) to efficacy (Kooiman, 2013). Researchers have shown that exergaming is a viable way to address a students need for physical activity (PA) (Daley, 2009; Foley & Maddison, 2010, Mellecker and McManus, 2008; Ni Mhurchu et al., 2008; O'Loughlin, Dugan, Sabiston & O'Loughlin, 2012; Wittman, 2010), cognitive stimulation (Sibley & Beilock, 2007; Staiano and Calvert, 2011; Staiano, Abraham & Calvert, 2012), emotional growth (Snyder, Anderson-Hanley & Arciero, 2012) and social relatedness (Mueller, Stevens, Thorogood, O'Brien & Wulf, 2007). Research on the physical, emotional, social and cognitive impact of exergaming over the internet is scarce and none exists for students.

The acceptance of OLPE at local, state and national levels is partly responsible for the rush to offer e-courses in physical education. Nearly all of the states (N=48) offer at least some type of online learning for secondary students (Watson, Murin, Vashaw, Gemin, & Rapp, 2012). Most secondary OLPE courses focus on the cognitive pieces of the curriculum and to a lesser degree fitness for life. OLPE courses that omit the social and emotional parts of the curriculum have created a chasm in the understanding, growth and development of students who take OLPE courses. Curricular pieces that address this void are urgently needed.

Exergaming or active video games, require students to more-or-less become a part of the game by engaging physically in the video game. The effect of exergaming over the internet is not known at this time. The ability of the gaming systems to connect over the internet for head-to-head competitive or cooperative play may place exergames at the forefront of the search for the social and emotional curricular pieces which can be used in OLPE courses. Empirical research into the efficacy of using exergames in secondary OLPE curricula could

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help to provide much needed information as to whether exergames might be considered best practice. New research is now available which can shed some light on this important question (Kooiman, 2013).

The Emergence of OLPE

With a greater number of secondary students opting to make use of a wider network of entirely online or hybrid/blended (some online and some face-to-face) courses, OLPE may be an oxymoron of the past (Mohnsen, 2012). Internet connectivity makes it possible for students to remotely connect with each other in ways that were not possible in the past. Trained physical education teachers can structure lessons that allow for the delivery of content designed to help students access the entire curriculum for physical education.

If OLPE is to address the same standards for PE, as does online curriculum for other subjects, the leaning which is to take place needs to be identified. OLPE classes that can be implemented successfully with a search for information using web based resources require an information system. Conversely, if OLPE needs to be taught with structure, assignments, progress monitoring, and assessments then a learning system is needed. The National Association for Health, Physical Education, Recreation and Dance (NAPHERD; 2013) asserts that PE is a planned instructional program with specific objectives. These objectives can be found in the PE standards. A closer look at the standards shows that in order to present a curriculum which makes all PE aspects available to the student a learning system is needed. The standards are replete with adjectives which show that the student needs to do more than simply describe, explain and identify but also to perform, demonstrate, participate, and manipulate which makes an information system inadequate for the attainment of the all the content in the standards.

The rapid increase in the number of secondary students opting to take online or hybrid/blended courses should be the primary reason to create a robust curriculum. There are, however, other reasons, such as the increase in sedentary behavior exhibited by teenagers in general and the need to get them away from computer screens and more physically active. This trend toward obesity is due in part to a lack of motivating curricular options especially, for students who are not inclined to move (Lyons et. al., 2012). Recent physical activity guidelines (2008) from the United States Department of Health and Human Services state that developmentally appropriate enjoyable activities that allow for a wide range of activities are needed. As more and more youths take OLPE, it is imperative that these students are engaged in curricula which can help to inspire them to be active for life. A complete OLPE program should only be under the direction of trained PE teachers. The tendency to offer lower quality instructors in online environments needs to be counteracted by proactive professionals who guide the process with 'best practice' in view and not fiscal savings ("Appropriate Use," 2009).

The Transition to OLPE

Some of the push for OLPE is driven by a changing diverse student population. For a variety of reasons many students are not drawn to the traditional model for PE. Students who do not demonstrate an aptitude for physical activity (PA) tend to shy away from settings where success is contingent on being the best. Students who lack confidence in their physical abilities often appreciate a class where intimidation and peer pressure are less ominous (Bryan & Solomon, 2012; Rhea, 2011). Students who choose online courses may have health issues that keep them from participating in a traditional class setting. Other students may just prefer the flexibility of being able to study at their own pace. In each of these situations OLPE provides an opportunity to fulfill course requirements.

OLPE courses, that are designed appropriately, could allow students to access all of the national content standards in PE. The use of exergames in the PE classroom is one area that is

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gaining lots of attention. Many researchers have suggested that exergames can help to fill the aforementioned social and emotional curricular void (Bailey & McInnis, 2011; Hayes & Silberman, 2007; Klein & Simmons, 2009; Lyons et al., 2012; Manley & Whitaker, 2011; Mellecker et al., 2012; Mohnsen, 2012; Revere & Kovach, 2011; Rhea, 2011; Sheehan & Katz, 2010; Sheehan & Katz, 2012a; Sheehan & Katz, 2012b; Sheehan & Katz, 2013; Staiano & Calvert, 2011; Warburton et al., 2007; Yang, Smith & Graham, 2008). Exergames have been shown to increase cognitive functioning indicating they are also able to complement other areas of study (Staiano, Abraham & Calvert, 2012). Mathematical prowess is also bolstered leading to success in engineering degrees (Feng, Spence & Pratt, 2007). NASPE feels that exergames can provide objective activities and data in a creative format which encourages PA among students ("Appropriate Use," 2009).

Exergames for OLPE

Exergaming can serve as an entry level fitness activity to get people started in movement activities. Students are inclined to try real life activities by first developing skills in the virtual world (Boes & Krell, 2010). Although, real life activities can provide superior levels of PA with increased health and activity benefits (Boes & Krell, 2010; Sheehan & Katz, 2010). Thus, successful completion of less threatening exergames helps build student confidence which can lead to a willingness to try real sports activities (Klein & Simmers, 2009). Improved skills may be due to the increased effort participants put into the exergames they play (Lwin & Malik, 2012) despite the perception of exerting less effort (Devereaux, 2012). Students who are less inclined towards PA but enjoy exergaming view them as less threatening and within their reach. These students can be 'tricked into higher levels of PA' through exergaming because students who exergame put more effort into the task with less perceived effort (Silverstone and Teatum, 2011). This increased effort may be linked to the view students have of the exergaming experience whereby the activity is seen as entertainment and not exercise (Lwin & Malik, 2012). Exergames which integrate movement with a gaming theme show more promise than those with an exercise theme, especially for subjects who are prone to sedentary game play because of the increased entertainment value of the activity (Lyons et. al., 2012).

Typically students of an OLPE class are homeschooled (Rhea, 2011). The homeschool setting may provide fewer opportunities for social interaction as well as fewer opportunities for PA resulting in a lower motivation to move. When playing in a group lower level group members exhibit greater motivation to play. This is because they feel they are needed by the group and that their contributions can make a difference (Irwin et al., 2010). The ability to choose cooperative or competitive play helps strengthen the perception of the learner that exergames offer a learner-centered activity. This can lead to a lower drop-out rate and higher student achievement and contentment (Revere & Kovach, 2011).

Almost all of the research on exergames has focused on individual or proximal student play. Positive effects for exergames have been found for physical, emotional, social and cognitive aspects of PE when played in proximity. Carefully selected exergames may help to develop students physically as they increase their HR to moderate levels (Perron, Graham, Feldman, Moffett & Hall, 2011). Exergames are known to promote an active lifestyle in adolescents (Simons, Bernaards & Slinger, 2012). Social interaction can be enhanced when students engage in competitive and cooperative exergame play over independent play (Mueller, Stevens, Thorogood, O'Brien & Wulf, 2007). Cognitive functions such as improved attention, better academic achievement and improved motor perception are also enhanced (Staiano, Abraham & Calvert, 2012). Improved motivation, increased student engagement and positive interest in the activity have also been connected to exergame participation (Graves et al. 2010). Recent literature suggests that exergames may be able to help students' access physical education standards (Guy, Ratzki-Leewing & Gwadry-Sridhar, 2011).

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Discussion

While there has been no research on exergaming in OLPE courses, recent research has generated empirical evidence which can help to position them as a piece of best practice. All four of the aspects of PE were examined in a group of secondary students aged 11–18 in grades 6–12 (Kooiman, 2013). Results showed that subjects recorded increases in heart rate, visual motor acuity, motivation and relatedness while playing over the internet. This data can position exergames as the first piece of OLPE curriculum that has been researched as to its effect in a remote setting. These findings can allow OLPE instructors to integrate exergaming into their curricula with the knowledge that there can be positive effects in all four of the main aspects of a PE curriculum.

Educators need to take notice of the move towards online learning and what is being offered in online physical education classes. Failure to proactively step up and guide the process can and will result in inadequate course offerings. Poorly conceived e-courses that are guided by untrained course mentors need to be replaced by well-conceived curricula that addresses the entire curriculum and is guided by trained teachers.

There is still more to learn about OLPE curricula and the use of exergames. Data on exergaming as part of PE exists only in the school or lab setting. Further research needs to be conducted on the effects of exergaming as a component of OLPE. Meanwhile, preliminary evidence on exergaming in schools can provide OLPE instructors with a starting point; one that has proven to be capable of helping remote students learn all of the aspects of PE, and not just some. In this way exergames can help to move OLPE from oxymoron to efficacy.

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An Introduction and Deconstruction of the Meta P.E-3

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Introduction

A new practical autonomy building approach through the instruction and acquisition of psychomotor skills is now functioning as an instructional affordance within education settings (Figure 1. Murray, 2008). Patented and manufactured in the US, this practical and explicit pedagogical tool follows a three step sequence and explicitly uses the learning domains as they pertain to physical literacy (Whitehead, 2010). In so doing, the deliberate pursuit of a higher order thinking process to attain and understand a healthful lifestyle with the acquired motor comprehension and competency is initiated. This is intended to provide the individual with the competency and awareness to maintain their future-based healthy endeavors when beyond the educational setting. The current paper deconstructs the new approach (progressed from a piloted paper-pencil method and employed in two countries) and its practical instruction as a learning tool for educators and learners. This formal introduction of the field based instrument intentionally precedes a supportive research series conducted within the public school setting (N = 1000) in South Texas in regards to physical education (P.E.) curriculum and structured physical activity (p.a.) time in schools across West London with pupils (N = 800) spanning from elementary through secondary years. A brief overview of metacognition is presented.

Metacognition

Metacognition essentially is the awareness one possesses and uses to regulate thought as to attain pre-planned and goal structured tasks. Seminal work focused upon the monitoring component of thought (Flavell, 1979; 1987) and research through its structure and impact has crossed various fields and disciplines. In relation to education, wisdom and applied insight stems through various subjects such as mathematics, literacy and Science in both North America and European primary and secondary educational settings(Fortunato, Hecht, Tittle & Alvarez, 1991; Pressley, 1995; Shayer, 1999) and in regards monitoring for tertiary level academic help seeking (Stavrianopulous, 2007). Specific attention to P.E. sought to understand the role of self-regulation (Ommundsen, 2003) yet practical integration of higher order thinking during goal directed p.a. participation toward a self-determined level of autonomy (Deci, Eghrari, Patrick & Leone (1994); self-agency (Bandura, 1989), has yet to be fully explored and integrated through our daily pedagogies.

Physical Literacy through Motor Competency and Supporting Comprehension

The growing awareness of the role played by motor development in quality P.E. is evident (Williams, 2004). As expected, we find a depicted trend of age-related diminishes in p.a. (Sallis, 2004) and an accompanying reduction in motor competency (Tremblay, Shields, Craig, Janssen & Gorber., 2010). A new developmentally appropriate biomotor ability training educational fitness model aligns through the depicted metacognitive sequence and illustrates the practicability of the process within elementary and secondary school P.E. and p.a. opportunities (Murray, Murray-Hopkin, Woods, Patel & Paluseo, 2013). Ongoing research has implemented the Meta P.E.-3 approach with the field instrument affordance in P.E. and structured p.a. settings (Murray, 2013; Murray, Lodge & Spence, in progress).

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Rationale behind the Meta P.E.-3 (3by3by3)

The Meta P.E.-3 was developed following the quest of a meaningful, practical and theoretically supported means of using higher order thinking in psychomotor skill acquisition as to build autonomy on the part of the learner from a personal and socially agentic perspective (Zimmerman, 2000a). The instrument is driven by a $3 \times 3 \times 3$ process bridging (1) knowledge types with (2) pedagogy, set upon (3) the temporal sequence of skill execution. For the Meta P.E-3 process and instrument to effectively operate, a goal; directed toward a psychomotor skill, is set and agreed upon by learner and instructor (teacher pupil, peer-to-peer, or self-teach).The importance of an affordance to aid learning (Gibson, 2001) rests upon the ability of the learner to perceive this part of the environment as a tool and catalyst to aid the situational learning (e.g. when to ask for support with a new weight in an incline press, when and what to tell your peer as you practice an underarm throw, or when to shorten your take off step before a lay-up if working independently). Of equal measure is the importance attributed to developmentally appropriate learning and instruction. This instrument encourages and appears to be of greatest effect within a well aligned motor development sequence through quality physical education (Graham, Holt/Hale & Parker, 2013; Pickup & Price, 2007) as to maximize the learning experience. The combined effectiveness culminates in the 'thinking stick' (Figure 1). This practicable affordance primes the learner to essentially track their awareness as they

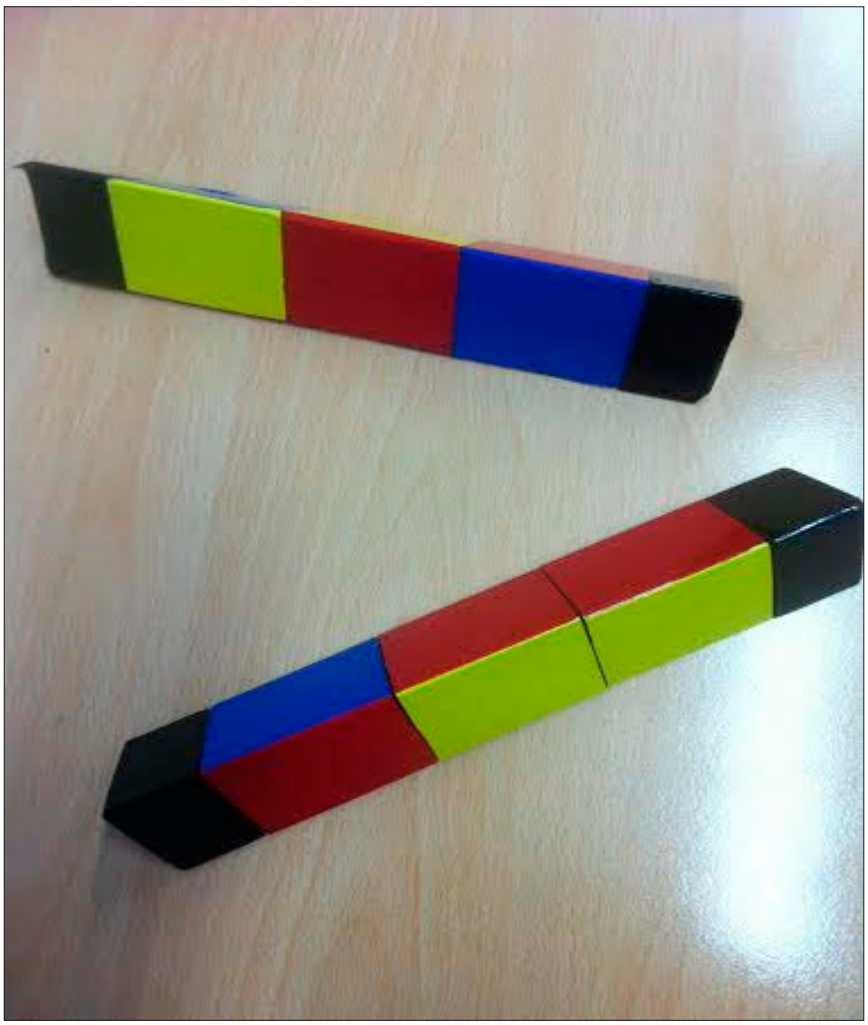

Figure 1. The Meta P.E.-3 affordance (Murray, 2008); the 'Thinking Stick.'

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Table 1. The 3 × 3 × 3 (Metacognition, Knowledge Type and Temporal Aspect of Skill Execution) Meta P.E Instrument-aligned with an Explicit Pedagogical Progression and Illustrated via an Example of a Closed Discrete Skill

The Meta P.E.-3	Metacognitive Component	Temporal Aspect	Learner Organization Activity	Knowledge Type of Focus at Each Phase	Example: Cartwheel
Phase 1	Planning	Before	Planning of task/skill	Declarative: At this early pre-action stage the instruction focuses attention and feedback to the declarative aspects of the skill	A travel or accelerating locomotor movement requiring balance, core stability and coordination
Phase 2	Monitoring	During	Attention to execution of task	Procedural: Learning provides feedback and questions as they pertain only to the procedural aspects of the skill	From a standing start position with arms above head, lunge (forward or to side), transfer weight from foot to hand to hand to foot again (return to start position in a controlled and fluid manner
Phase 3	Evaluating	After	Reflection of result to impact next play	Conditional: Following task/skill completion learning pertains to attaining congruence between expected and attained outcome, understanding when to use this across various contexts and in conjunction with other skills, or in response to the demands of new and differing situations	Understand and be able to use cartwheel into another skill, or across the beam, from another skill, know how deep to make lunge as determined by goal of skill, know how to correct if core dips during execution
Scaffolding process Pedagogically developmentally appropriate aligned instruction	Precontrol-Control level of proficiency delivered through a Teacher-to-Pupil (direct) instruction	Utilization level of skill proficiency delivered through a direct instruction peer-to-peer scaffolded instruction	Proficient skill level (when able to transfer skill into various more complex scenarios delivered through an indirect self-directed approach with teacher as facilitator		

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acquire (e.g. learning to trap a soccer ball and pass to a team mate in drill time), refine (trapping and passing with accuracy and increased speed) and deploy a motor skill across varied settings (passing the ball with control under game pressure situations). It is supported by the constructs of Brown (1987) which are measurable via the MAI-Jr (Sperling, Miller & Murphy, 2002). Furthermore it opens a channel for deeper level exploration within the thinking process Behind and understanding of student actions through an accompanying thematic analysis (Strauss & Corbin, 1989) surrounding the knowledge and understanding accrued by the metacognitive participant (Murray, 2008). Its sequenced process operates through a three step process collapsed from an earlier six step taxonomy researched for text and problem setting (Meijer, Veenman & van Hoult Walters, 2006). Pilot work in P.E. and p.a. settings then tailored the instrument and process across a three dimensional setting of knowledge type, pedagogical progression and skill execution sequence as see in Table 1.

Table 1 depicts the theory behind how the mind is encouraged to follow the systematic pathway of planning through predominantly declaratively-based knowledge, of monitoring the practice or execution via knowledge procedural in nature and then evaluating the result through a conditionally based knowledge focus. This would remain the same for the teacher, peer or self-governed approaches as to create a practical 'norm' of thinking during the acquisition and refinement of skill. Progression in motor competency and understanding can also be aligned with specific teaching styles or models (noted in Table 1) as to scaffold the journey toward higher-order thinking led pupil autonomy. Certainly with regards to learning this has been shown to improve retention of curriculum based knowledge elicit superior scores during content exams (Murray, 2008; 2013). Other aspects of the process are being explored to support its implementation in pre-service physical education teacher education (trainee) programs and indeed primary and secondary school settings (Murray, Lodge. & Spence, in progress).

Conclusion

Research of this applied yet theoretically driven approach is gaining momentum in Europe and North America and its adoption is finding its way across various environments in which we find physical literacy to be a common goal. New research collaborations are invited.

Acknowledgments

My thanks to NAKHE for the opportunity to participate in our 2014 Conference and to The Chronicle for including this piece as part of our ongoing collective endeavor toward enhanced performance across the breadth of our responsibilities.

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Interdisciplinary Partnerships in Higher Education Kinesiology

Tara Tietjen-Smith and Betty Block

> *Big breakthroughs happen when what is suddenly possible meets what is desperately needed.*
>
> — Thomas L. Friedman

The term *supercomplexity* was coined to describe the multifarious challenges facing higher education (Barnett, 2000, 2004; Block & Estes, 2011). Agendas of participation, access, and equal opportunity are just some of those challenges. Interpenetration of higher education with the wider host society calls for relevant coursework and programming. Thus, higher education is evolving, along with the kinesiology department. Resources once available to universities are declining; and university faculty and administrators have been challenged to combine scholarship, teaching, and service, while making the programs relevant and self-supporting. Pressure from administration to teach more classes, serve on more committees, and coordinate academic programs as well as increase research production and revenue for universities (often without release time) has put added pressure on faculty to perform more with much less.

Kinesiology departments must be flexible and assertive in the quest for an equal share of resources and recognition. Being flexible includes working and brainstorming *outside the box* for ways to increase revenue in order to supplement departmental budgets. Assertiveness in the quest for resources might include being verbal about what kinesiology is and what the kinesiology department provides; developing positive relationships with executive administration, developing a strong strategic plan that frames requests for resources; and developing and cultivating partnerships within and outside of the university. A public image makeover may also be in order. In this article we share our entrepreneurial venture at Texas A & M University – Commerce for increasing revenue (and thus independence) for health and kinesiology departments in a challenging economy.

The Case for Interdisciplinary Partnerships

Interdisciplinary partnerships on and off-campus are vital to the progression and positive public image of kinesiology programs on university campuses. Working together and sharing ideas and resources is vital to our continued success. Understanding who we are and what we value is the first step to unifying a department. Creating a viable and sustainable strategic plan that all departmental members can *buy into* is imperative. Stakeholders include faculty, staff, and administrators as well as students and alumni. Germain (2013) gave an overview of strategic planning at the NAKHE Leader Development Workshop, including analyzing strengths, weaknesses, opportunities, and threats (SWOT) and using leverage to overcome obstacles and challenges. Seven steps of the strategic planning process were outlined:

> (1) Establish core values, mission, and vision; (2) Prepare, organize, and set milestones for process; (3) SWOT analysis; (4) Strategic goal development; (5) Development of objectives; (6) Development of action plan and indicators; Implement the strategic plan; and (7) Assess, analyze, review, and revise plan; Make resource allocation decisions. (p. 29)

During the strategic planning process, justifications should be written in order to support allocation of resources, both for the kinesiology administrator to present to the dean and the dean to present to upper university administration. This planning and justification process likely results in resource attainment that ultimately benefits kinesiology faculty, communities,

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the department, and the university. In order to survive and flourish in our current academic environment, the following strategies should be used.

1. Establish an attitude and belief founded in excellence, and put it in writing.
2. Explore the effects of strategic public health (and other) partnerships. (Public health is a *hot topic* right now. Kinesiology departments can benefit from developing these partnerships.)
3. Increase resource attainment and utilization. (Develop a strategic plan and justify, justify, justify.)
4. Improve public image on campus and in the community. (Become more visible on campus and in the community. Talk about the department and what you and your students are doing.)
5. Collaborate among disciplines within HPER department. (We all have our strengths and weaknesses. Let's share and become stronger together.)
6. Include student involvement. (Our students are our current and future advocates.)
7. Participate in continued discussion of progress and future. (Strategic plans may be working documents. Just as *change is constant*, these plans should be flexible to meet those changing needs.)
8. Don't be afraid to be political. Engage in politics to *get things done*. Build coalitions.

One Kinesiology Department in Action

In the Department of Health & Human Performance (HHP) at Texas A & M University-Commerce we developed an Academy for Health Potential (AHP). This departmental venture was designed to create a culture in the department that encourages the highest levels of teaching, research, and service while at the same time preserving morale and preventing burnout. Our journey began at the 2011 NAKPE Leadership Conference in Atlanta, Georgia. Three senior faculty members brainstormed for three hours on the concept of a self-sustaining, revenue-producing entity that would support faculty in combining research, teaching, and service, while also serving the community and improving our public image. During a retreat that fall, departmental faculty along with our new department chair developed a strategic plan. That strategic plan included the AHP as an integral part. The AHP would be a revenue-producing and support venture concerning public health that can change the future of how kinesiology departments support faculty and programs.

The AHP was designed to be an educational support and social service venture related to public health issues that positioned the department to change the manner in which faculty, students, and programming was supported. The Academy model included many components, including community programming, student experiential learning, support of faculty research, and, ultimately, much-needed revenue. Partnerships with governmental agencies, other organizations on campus, partner universities in the A&M System, alumni, and the surrounding community created a strong foundation for success. This venture was designed to benefit the A&M Commerce campus and Hunt County community and serve as a public relations and marketing tool for the HHP department.

Several goals/objectives concerning teaching, research, and service emerged during our deliberations.

Teaching-related objectives included involving undergraduate and graduate students in community-based research and service as part of degree program and class experiences as well as providing experiential learning opportunities by applying information and skills learned in the classroom to the real-world. Another goal was to develop a Bachelor of Public Health (BPH) program. The BPH is a relatively new and rapidly growing program nationwide. Texas

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Table 1. Academy of Health Potential Goals for Teaching, Research, and Service

Teaching	• Involve undergraduate and graduate students in community-based research and service • Provide experiential learning opportunity • Encourage Boyer's scholarship of teaching, research, service • Create Bachelor of Public Health (BPH)
Research	• Provide research assistants to all tenure-track faculty • Coordinate an environment of scholarship • Encourage collaboration • Hire professional track DPH director • Actively seek community and alumni partnerships
Service	• Provide community health services • Address northeast Texas social justice issues • Promote health and wellness to the wider society

A & M – College Station approached us for a possible partnership as they currently have Bachelor of Science in and Master of Public Health (BSPH/MPH) programs.

Research-related objectives for the AHP included providing teaching/research assistants to all full-time, tenure-track faculty. This allows faculty to be more flexible in their time and research efforts. While coordinating an environment of scholarship, faculty produced and discussed scholarly plans and created entrepreneural plans for securing resources (e.g. grants and charging for services). This also included encouraging collaboration with each other, other departments, and sister departments at different universities. A faculty line was also procured in order to coordinate service and research of the entire department as well as direct the AHP. (We eventually hired a Doctor of Public Health (DPH) who is also a grant writing specialist.) One way of combining research with other areas of importance would be cultivating a community pool of research participants. These individuals would be those who take advantage of educational programming, social justice projects, workshops, and health analyses and testing.

Social justice activities are important to our faculty. As a result, we developed service-related objectives for the AHP, we were particularly interested in providing community health services to the surrounding geographical areas; addressing northeast Texas social issues (specifically those in rural areas); and promoting health and wellness to the wider society. We anticipated that secondary outcome from this promotion would be improving our public image across campus and in the community as well as broadening the impact of programming.

Challenges and Possibilities for the Future

To date, the strategic plan has been approved by executive administration. The faculty member with a DPH who has experience related to our mission has been hired. Campus and community partnerships are being developed. Examples of partnerships include meetings and role coordination with Student Health Services, campus recreation, intra-disciplinary members of our department, as well as area hospitals. We began developing partnerships with alumni, some with whom we were already familiar and others through the Office of Planning on our campus. A key connection with an alumnus who is a major player across the state of Texas in public health has been secured; a board of directors is being recruited. Funds have been set aside for AHP space. and a temporary building has been transferred to the department until a new Health Sciences building that has been proposed by upper administration to the legislature is approved.

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We are extremely optimistic about our future. Addressing research needs, social justice issues, greater student involvement, and a focus on public health through community resources, beneficial partnerships, and collaborations with key constituents are part of that future. The opportunity for positive public relations is an added benefit. Health and Kinesiology has a public mandate for producing more relevant research, meeting a broader student base, and becoming fiscally viable and accessible. Professors and administrators who work in kinesiology in higher education are feeling pressure to produce (more online classes, access to more students, more publications/research, more relevant coursework, among others) with fewer resources. Administrators are looking for university ventures such as this to demonstrate to the public that we are attempting to meet those directives. Interdisciplinary partnerships are a viable avenue for meeting these challenges. Kinesiology department disciplines are uniquely equipped to offer entrepreneurial solutions that alleviate financial difficulties while supporting faculty, staff, students, and the community.

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The Challenge of Reaching "Beyond the Walls" in the 21st Century

Bill Stobart and John Oppliger, Pittsburg State University
Patrick Wempe, Henderson State University

Academia will face many challenges and changes in the 21st century. The concept of a college having a campus where all phases of academia occur will be challenged. Colleges and universities may be forced to reach "beyond the walls" to grow and prosper. The concept of "beyond the walls" may change the physical appearance of college and university campuses across the country. It is possible colleges and universities in the 21st century may not need classrooms, libraries, residence halls, or athletic facilities. Technology may continue to eliminate "tradition" as technological advances and economic accountability determine the course of higher education.

In the 21st century, it could be likely that the physical plant of a college may begin to look like a television broadcast center with gigantic towers and transmitting stations beamed not only to their local area but virtually around the entire planet. Colleges offering courses on the web is now an expectation by students. Colleges entering into this mode of delivery in the early part of the last decade and demonstrating significant increases in enrollment and credit hour production became the envy of those institutions that were hesitate or refused to take the gamble by insisting tradition was their strength. The marked proliferation of online courses and degrees across the country is in part and attempt for the reluctant colleges to catch up.

What will a campus look like when a college must go "beyond the walls?" The campus of the 21st century may look very different. While colleges have been keen to market their modern technology acquisitions and success at housing computer labs in every building, the future may present an entirely different look. Computer labs will not be needed because all students will have their own computers. In some colleges, this is already the case. As K–12 students continue to be trained in methods of inquiry requiring the internet, the need for college libraries will be minimal, perhaps obsolete. The need for classrooms will be much different. Most colleges have enough available classroom space today that is not utilized prudently. Even today, with more online course delivery fewer classrooms are needed. Some colleges find several buildings virtually empty in the summer as online has become the mode of delivery in the competition for students. Perhaps only a nominal number of classrooms will be needed as students will not have to leave their residence to observe a class lecture. The age-long and escalating problem of expensive textbook purchases may be remedied by the use of e-books, ancillaries, shared publications, and various forms of social media. Other than for souvenirs and t-shirts (which themselves can be bought online) the need for bookstores and conventional books will be obsolete. Will reaching beyond the walls result in the total absence of college campuses, save a building or two for administration? Perhaps some scaled-down campuses will be retained to coincide with the belief that students need to leave home and experience the social interactions vital to their development. On the other hand, the walls of the college campus in the 21st century may be the walls of a bedroom, living room, kitchen, or study in a student's home, if not that of their parents.

"Beyond the walls" may encompass many forms of technology. Technology will vastly affect administrators, faculty, and students in the 21st century. Challenges and changes in academia will probably accelerate from the first part of the 21st century to the latter part of the 21st century due to technological advances. Will administrators, faculty, and students be able to adjust to these challenges and changes in technology? Going beyond the walls may eliminate

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the size of institutional workforce. Economic (financial) accountability will be more easily addressed with a drastic decrease in college faculty salaries. Since salaries devour the majority of institutional budgets, a model of essential and adjunct personnel may become the norm. Some kinesiology departments (and other disciplines as well) have experienced major cuts in tenure track faculty positions, mainly through retirements. These position lines have either been eliminated, turned into instructor positions, which result in enormous financial savings, or departments are afflicted with the task of finding and using suitable adjuncts, which, of course, results in far greater financial savings to the institution and state.

Will 21st century colleges even have athletic teams? There has been a proliferation of sports in this country an argument would be made to keep some fragment of campuses in-tack solely for athletic teams. Will 21st century colleges need kinesiology departments? Will students disappear on campus, replaced by names on a class roster? Will students stay home, take on-line classes, and never set foot on their alma mater's campus? In fact, this has already been happening for nearly a decade in some of the early online graduate degree programs.

What will the 21st century student be like? Students are changing. Most are very savvy toward technology. The method of instruction in the 21st century will need to adjust to social change. Technology will continue to change. Students will bring all kinds of technology to education.

What will happen to students with disabilities on campus? There exists the possibility of more students with disabilities attempting to take classes "beyond the walls" of the 21st century campus. How will distance education affect students with disabilities? Will colleges be responsible for providing technology for students with disabilities that cannot afford technology in their homes?

Going "beyond the walls" may possibly eliminate the need for the large number of higher education institutions. Will society need fewer colleges and college professors in the 21st century?

Can a New Wellness Program for Faculty and Staff Benefit a College's Healthcare Status?

Thomas R. Johnson, Albion College

BEFORE WE STARTED… 2010

I was a tenured Associate Professor and Chair of the, then, Physical Education Department at Albion College in Albion, Michigan. The College's President instituted three "themed" years, the second of which was "The Year of Wellness" and I was asked to co-chair the initiative which consisted of faculty, staff and administration. "The Year of Wellness kicked off with "The 100,000,000 Step Challenge" and participants from all segments of the College plus alumni walked their way to over 104,000,000 steps. This was a great success. Additionally, one of my students, Jeff Simmons, wrote his Departmental Honor Thesis on worksite wellness and this contributed to the development of the current program. Together, these activities helped rally the Institution to recognize the value of wellness.

In June of 2011, the President and the Provost of the College asked me to become the Director of Campus Wellness. I retired from teaching to begin my new career. Albion College had no formal employee wellness program. Although we had and have health insurance for administration, faculty and staff, we are self-funded. With that in mind, it was even more important that our employees get and/or remain healthy. Attending a WELCOA (Wellness Council of America) conference on worksite wellness brought clarity to an educational component of wellness. This information allowed me to educate our population on the benefits of understanding their role in their health status. We call it "You are the CEO of your health." The components of this plan include collection data and making a personal health record, finding and contacting a doctor, recognizing their own physical data analysis, making a plan to be an active participant in their health, setting up times and schedules to work out and physically, emotionally, and mentally performing tasks to make them healthier.

With no formal plan, I set out on a path to find out what other higher education institutions offer as a wellness program for their employees and what they do. I was fortunate that I received a grant which was aimed at re-educating myself in the transfer from being a teaching professor to an administrator of a new higher education program. I began by taking two massive trips which took me from Michigan to Calgary, Alberta, Canada and then from coast to coast across the United States. I travelled over 10,500 miles and visited over 20 higher education institutions to learn about worksite wellness in that venue. Significant campus wellness programs' information with a focus on faculty and staff was gathered from DePauw, Denison, and Gettysburg College. I learned many things from these colleges and will list the pertinent information below.

- One college's health insurance provides benefits which are passed back to the participants in lower costs if they complete certain requirements.
- The same institution talked about certification of anyone who teaches/leads the activities whether physical activities or classes. The common thread is for obvious safety reasons.
- I also learned that you must call one activity indoor cycling (or other generalized term) if you are not using "spinners" (a specific trademarked machine).
- This was also the first time that actual timeframes for the activities were mentioned. The major time breakdowns where centered around noontime and late afternoon and some activities may be in the early morning.

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- The problem that they have is that they must "borrow" classrooms around campus in order to conduct the classes/activities. Nothing is centralized, not even in one building. There is a small fee ($25) for activity classes so that people "buy in."
- One of the administrators is a member of WELCOA (Wellness Council of America) and a national leader in worksite wellness. The College uses the concept of medical self-care from WELCOA.
- Most of the same things are shared among all the institutions such as time of day for activities, separation of faculty and staff from students and athletes, etc. No two activities are running concurrently.
- One College has quite a few staff members who work shifts late at night or early in the morning so they offer services to accommodate their work shifts and goes to them rather than expecting them to come to her. Flexibility is key.
- The local hospital provide a tobacco cessation program for the campus. She runs a Wellness Fair in which biometrics are front and center. Money is set aside form the Health Budget so that technicians (non-counseling) and outside biometric and HRA consultants (counseling) are brought in to perform screenings. This is offered several times a year. Regular blood pressure screenings are offered once per month and if someone participates three times, he/she is given a pedometer. There is a wellness resource library and a loan program for equipment such as polar heart-rate monitors. There is also an "e-letter" and a "pedometer challenge.
- **The most impressive information from Denison is that they had a 2% DECREASE in healthcare costs over last year.**
- Another college has the attendants certified in CPR and AAD.
- The facility, which is accessed only through use of an access card, is open from 6:30 am – 11 pm with the heaviest use between 4pm and 6 pm.
- The Athletic Director explained that in the desire to have all coaches full time employees, they all have double-duty somewhere on campus. For instance, the Volleyball coach and the Director of Fitness Programs is the same person and is under Human Resources.
- Their worksite wellness is tied to insurance premiums. The hospital provides screenings free of charge. There is a screening questionnaire which the faculty/staff takes. They bring everyone together in one location for the screenings. There is a faculty wellness committee. This is another institution that has benefitted financially from worksite wellness. They have two tracks that the faculty/staff can take. Both are based on points. Each employee sets his/her own goal, keeps a journal on the website and reports twice a year. **One person I talked with saw a 30% reduction in her family's health care in one year.**

DEVELOPING FITT Brits

How we built the program…

After gleaning the information from the conferences and the campus visits, I began to develop the FITT Brits' program. I want to thank all of the people who taught me about their campus wellness programs. I learned more that I can ever relate in this article.

- **"FITT"** stands for "frequency, intensity, time, technique. **"Brits"** – "Brit" is the mascot for Albion College. Students came up with this name for the program.

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- Albion College had a committee that worked to develop the FITT Brits' Mission Statement.

  It is the mission of the Albion College Wellness Program to enable the students, staff, faculty and administration to become knowledgeable in making wise choices relating to one's health and wellbeing and to become healthier and more productive members of the College community.

- I learned that location does matter. A central location for the program is not just preferable; it actually sets the stage for the experience. Mostly, I learned that a specific location which the faculty and staff can relate to is a comfort zone. When they feel comfortable, they enjoy what they are doing and work towards a goal. They prefer to have an environment that does not include students as the students often have a different goal and they also tend to intimidate the employees. We had three possible locations: the basement commons area in the freshman dorm, the basement of our basketball arena and the second floor of the grounds department. The freshman dorm was "too busy." The basketball arena didn't have the right kind of power and, the most important reason for not choosing either of these venues was that they were too far away and inconvenient for the faculty and staff. That left what is now known as "The Depot" where employees can have easy access using their swipe card. They call it "home!"

Albion College's FITT Brits Program

There are four major parts of the FITT Brits program. They are Education, Physical Activity, Data Collection, and Outcomes.

Education

You aren't going to get your employees to begin a program unless they understand the program, so we began an educational process. The "hook" started with the themed year "Year of Wellness" as we brought in vendors and activities which provided insight into healthy lifestyles. More than 800 students, faculty, staff, administrators and alumni participated during the campus-wide health fair which helped to kick of the program. Health professionals and vendors provided hands-on opportunities to learn about health and wellness. Over 100 faculty, staff and administrators took part in "The 100,000,000 Step Challenge."

"You are the CEO of your health."

Do you remember when you were little? Your favorite word was "why?". You wanted to learn everything you could about "whatever" and you drove everyone crazy, but you learned and many of the things you learned led you to the person you are today. This is true of leading a healthy lifestyle. Your senses tell you one thing; your brain tells you another. But once you learn why you need to establish a healthy lifestyle, you will embrace it. The FITT Brit's CEO Plan was used to provide the background for your success. We started with the concept of you having the resources to build the ladder to success. The first step was to educate the participants by providing them with the book Healthier at Home: The Guide to Self-Care & Wise Health Consumerism written by Don R. Powell, Ph.D. and the American Institute for Preventive Medicine. Not only does it provide information on symptoms and "what to do" bullets, it also provides the items which every person should have available in case of emergency such as insurance information, contact information, a family medical record, your personal health record, allergies, etc. During the first year of the program we had a medically certified consultant meet with each participant to discuss his/her information. Next, the educational component to FITT Brits encourages all participants to take the electronic Health Risk Appraisal electronic

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survey. During the first few days of beginning the program there is an assessment including measurements in key areas of the body. The data are entered into a spreadsheet and each participant receives the composite data throughout the entire time they are participants in the program. They are encouraged to share these pieces of information with their doctors. Finally, we are partnering with our healthcare provider to provide biometrics and health plan data.

Weekly newsletters provide information about the times set forth for specific activities such as water aerobics, walking, kettle bell, spinning, etc. Introductions to time changes, new equipment, and many suggested activities, etc. are included in the Monday morning news. Additionally, the "Depot" also has a library available to all administrators, faculty and staff. Current books are constantly being added to the collection.

Physical Activity

"The Depot" is the home for Campus Wellness; however, some activities require or inspire people to "workout" in other venues, such as the swimming pool or running outdoors (to get ready for marathons, etc.). We have everything from weights and ropes to treadmills and surfboards. Some equipment is self-propelled such as "Jacob's Ladder," rowers and Spinners®. The activities vary by day, challenges (30 day progression), modes such as fitness, flexibility, strength, endurance, etc. Everything focuses in concepts of preventing injuries and diseases and promoting functional movement.

In some instances, the participants get very engaged in a specific activity and ask to get certified to teach that skill. The College has paid for the people to get certified and then those who are trained volunteer to teach those skills. We have also been fortunate to have some students who are either juniors or seniors and are thinking of working in this field to work as "Student Wellness Assistants." They have taken the position very seriously and work diligently to provide support during the activities.

Below is a quick guide to:

What we do…

- Shoulders to knees
- Balance
- Flexibility
- Strength
- Functional movement

How we do it…

- 30–45 minute sessions
- Drop in and exercise
- Faculty and staff only
- Directed activity
- Dance – Zumba, Flirty Girls, Hip-Hop Dance
- Wellness Walkers
- Wally Ball
- Spinning
- Monthly challenges
- Opportunities outside The Depot
- Opportunities beyond The Depot
- Water aerobics
- Kettle Bell
- These are taught by credentialed staff volunteers or Student Wellness Assistants.

Data Collection and Outcomes

Data is used to help with educational and fitness programming and to show the impact that an active wellness program can make for:

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Can a New Wellness Program Benefit a College's Status?, *continued*

- The institution
- Attendance
- Job satisfaction
- Productivity
- Healthcare benefits
- The Student Wellness Assistants
- The faculty and staff –improved functional movement
- All participants sign a liability release and have agreed to share their data.

What does the data say?

Over 75 people participated in the 13 months of data collection.

- Weekly attendance has risen from an average of less than 10 people/day to over 30 people/day.
- Total BMI dropped of 64.24 or the monthly average of BMI dropped was 5.35.
- Total % body fat dropped of 67.31 percent or The monthly average was 6.53.
- Total inches lost: 608.25 or Monthly average was 50.6. Measurements were taken in 11 places.

Anecdotal Health Data:

- Lowering of daily insulin
- Lowering of blood pressure medication
- Reduction in other medications
- Fewer visits to the chiropractor
- Lowering of both cholesterol levels
- Lowering of blood pressure
- Fewer healthcare claims
- Lowering of dollar amounts per healthcare claims
- Lowering of total amount of dollars spent on healthcare claims

Anecdotal Worksite Job Satisfaction Data:

- Fewer absences
- Less time off for injuries
- Less tardiness
- More work being accomplished during the work day.
- Enjoying their job more
- Fellowship and encouragement
- Excited to come to The Depot because they know when they are finished, they will feel better about going back to work

Future Data Collection:

- Lowered healthcare costs
- Increased job satisfaction
- Improved functional movement
- Enriched lifestyle
- Biometrics
- Electronic HRA survey
- Electronic job satisfaction survey

Additional Goals:

- Increased number of employees having annual physicals
- Increased number of employees completing their personal health record
- Increased number of employees completing a FITT Brits year-long wellness plan
- Strive to have BCBS as a stronger partner for data.

CAN A NEW WELLNESS PROGRAM FOR FACULTY AND STAFF BENEFIT A COLLEGE'S HEALTHCARE STATUS?

ABSOLUTELY!

Teaching the Whole Child: Using the Multiple Intelligence Theory and Interdisciplinary Teaching in Physical Education

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Teaching the whole child is an initiative that was launched in 2007 by the Association for Supervision and Curriculum Development (ASCD). It is a perspective that provides students a safe learning environment in which they can be fully engaged, challenged academically, and supported by the school and community. Both the Multiple Intelligence Theory (MI) and interdisciplinary teaching support this educational initiative.

The Theory of Multiple Intelligences

Howard Gardner developed the Theory of Multiple Intelligences (MI) as a lens to address the individual needs of students by tailoring pedagogical content and activities based on students' different capacities to learn (1993). According to Gardner (1993), there are seven distinct intelligences that everyone possesses which include: logical-mathematical, visual-spatial, bodily-kinesthetic, interpersonal, musical-rhythmic, intrapersonal, and verbal-linguistic (see Table 1). The MI Theory is based on the assumption that students have different talents, interests, and abilities, and learn in different ways (Gardner, 1999). The challenge, however, is that many educators use a curriculum-centered approach in order to educate all students rather than considering the unique abilities of individual students (Hoerr, 2002).

In fact, Gardner (1999) argues that there are a variety of ways students comprehend, understand, and retain information based on students' talents and abilities. In short, MI allows teachers to educate students using a "child-centered" approach (Hoerr, 2002; Korkut, 2008). Physical educators have described how the MI Theory can be implemented successfully in a variety of units/activities such as during a Sport Education unit (Martin & McKenzie, 2013); dance (Blumenfeld-Jones, 2009); and tennis (Mitchell & Kernodle, 2004).

Table 1. The Theory of Multiple Intelligences

Multiple Intelligences	Intelligence Descriptions/Strengths
Interpersonal	Non-verbal and verbal communication Relates well with others
Bodily-Kinesthetic	Gross and fine motor skills Physically coordinated
Visual-Spatial	Interpret and graphically depict the spatial world
Musical-Rhythmic	Appreciation and understanding of rhythm, auditory and musical talents
Logical-Mathematical	Analyzing patterns Logical reasoning
Verbal-Linguistic	Ability to use oral and written language
Intrapersonal	Self responsibility and self-awareness

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Interdisciplinary Teaching in Physical Education

Another way physical educators address the individual needs of learners is by integrating interdisciplinary lessons into the curriculum. This approach to teaching provides many benefits such as reinforcing concepts from other disciplines (i.e., Common Core State Standards), increasing retention of academic and movement concepts, and meeting the needs of students who are "hands on" learners. Furthermore, Hannaford (1995) reminds us that "the human qualities we associate with the mind can never exist separate from the body because movement is an indispensable part of learning and thinking" (p.11). In short, "movement anchors learning" (Hannaford, 1995, p.98). Educators meet one of the National Association for Sport and Physical Education (NASPE) best instructional practices recommendations when they "link physical education experiences with concepts being taught in mathematics, science, social studies, art, and music" (NASPE, 2009, p.20). Teaching the *whole child* by using the Theory of Multiple Intelligences and interdisciplinary movement activities provides students with a fun, and engaging environment in which to learn and enjoy moving.

However, current educational practices focus on standardized testing which has changed how schools evaluate and develop curriculum. For example, a current trend, developing 21st century skills, emphasizes helping students develop the technological and critical thinking skills necessary to compete in the global economy upon graduation from high school. In addition, many states and school districts use Common Core State Standards (CCSS) as a framework when making curricular decisions and assessing students' academic progress. In fact, 44 states and the District of Columbia have adopted the core standards in English language arts and mathematics (Common Core State Standards Initiative, 2014).

This article describes how Central Connecticut State University (CCSU) integrates the Theory of MI and interdisciplinary teaching into their physical education teacher preparation program. Strategies will be described regarding how the MI theory and interdisciplinary teaching are used in physical education from a whole child perspective.

Teaching Fitness and Multiple Intelligences

In the *Methods of Teaching Fitness* course, the Multiple Intelligence Theory is considered when planning and implementing lesson activities and assignments. Since fitness concepts and activities are a mainstay of most physical education programs, teaching fitness from an MI perspective can have a major impact on the classroom climate and student learning. Students who are allowed to approach fitness from a perspective that considers students' individual talents and intelligences are going to feel more comfortable participating in fitness-related activities. Task teaching, for instance, is a lesson design that can be used with the MI theory where a series of fitness stations that focus on the different multiple intelligences.

For example, in an aerobic lesson, three stations could be offered: 1) exergaming which relies on spatial-visual intelligence, 2) jump bands which capitalizes on rhythmic-musical intelligence and 3) a pacing station where students can use logical-mathematical intelligence to figure out a lap pace that will allow them to sustain aerobic activity for a designated distance. An inclusion teaching style also can be used when introducing fitness stations by allowing students to select the station of their choice, remain there, or freely move from station to station. If, however, the objective is to have students develop more than one intelligence in a particular lesson or try different approaches to discover their primary intelligences, then the instructor can rotate the students through all three activities.

A second way of designing fitness lessons is to plan one lesson activity, but set it up in a manner in which students with different MI strengths can be successful. For example, one of the assignments in the *Methods of Teaching Fitness* class requires the students to master a step aerobics routine consisting of eight different steps performed with an even cadence. Below are

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Table 2. The Multiple Intelligences and Fitness Activity Examples

Bodily Kinesthetic	Yoga Pilates	Agility Ladders	Bosu Balls	Educational Gymnastics	Cross Training
Visual-Spatial	Exergaming patterns	Geo-caching	Hop Scotch international patterns	Fitness-based mirror & match	Tanikling Jump Bands
Musical-Rhythmic	Group Fitness i.e. Zumba	Creative Dance Sport Dance	Jump rope routines	Choosing workout music	Song-based learning
Logistical-Mathematical	Pedometer counts and estimates	Target HR Zone calculations	Creating shapes with body, ropes	Pacing	Weight load (% max)
Verbal-Linguistic	Explaining concepts	Writing fitness goals	Student portfolios	Student discourse	Student presentations
Interpersonal	Peer coaching	Peer spotting	Peer motivating	Peer teaching	Peer assessing
Intrapersonal	Setting own fitness goals	Self-assessing fitness level	Identifying sources of self-motivation	Personalizing a fitness plan	Taking fitness beyond class

some ideas of how this assignment can be adjusted to offer opportunities for students to use their MI strengths.

- A written version of the routine is provided. (Linguistic)
- A videotape of the routine is provided. (Visual-Spatial)
- The steps may be rearranged to create a pattern more natural for the student. (Visual-Spatial, Bodily-Kinesthetic)
- The cadence may be slowed or increased as long as it stays steady. The student can select the music from which to perform – a simple drum beat to a popular song. (Musical-Rhythmic)
- The number of repetitions a step is repeated may be any multiple of four. (Mathematical-Logical)
- Calling (cueing) four steps results in a half-letter grade increase. (Verbal-Linguistic)
- Using arm movements to match the leg movements for four steps results in a half-letter grade increase. (Bodily-Kinesthetic)
- Students can work alone (Intrapersonal) or in small groups (Interpersonal).

Thinking through how multiple intelligences can be considered when designing fitness activities and assignments can help differentiate lessons and motivate students to not only be physically active, but also take ownership of their learning. This approach helps students be successful in physical education and more importantly, enjoy participating in physical education. Table 2 provides additional examples of fitness-based activities that can be used in lessons with an objective of emphasizing particular intelligences. Using a variety of them will help a teacher reach students with different learning styles as well as intelligences.

Interdisciplinary Teaching: Skills and Instructional Strategies

Recently, a new one-credit course was adopted to prepare our teaching candidates for educating the whole child through an interdisciplinary approach. An emphasis was placed on creating a course that utilized interdisciplinary teaching through the implementation of the Common Core. In the course titled, *Skills and Instructional Strategies in Interdisciplinary Teaching*, the teacher candidates prepared physical education lessons based on the Common Core. An-

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other task was the creation of a thematic unit in which students designed a series of lessons about one specific topic across two or more disciplines (i.e., physical education, social studies, art, mathematics, etc.). At the end of the eight-week course, the students planned and taught a 30-minute interdisciplinary lesson to their peers and administered a peer assessment.

Central Connecticut State University (CCSU) faculty also use interdisciplinary methods through the integration of the Physically Active School System (PASS) initiative. PASS is a program that school districts utilize for school-based physical activity that contributes to overall fitness and enhanced cognition (Ciotto & Fede, in press). Specifically, PASS emphasizes the inclusion of physical activity throughout the school day by incorporating brain breaks/energizers, and content-rich physical activities before, during, and after school. These activities are in addition to a quality physical education program. The emphasis of this initiative is making the connection between the mind and body.

For instance, an example of a content-rich activity for math would be incorporating addition, subtraction, and multiplication equations while tossing and catching a scarf from one hand to the other. An example of embedding a content-rich language arts activity is called Words on the Move. This activity requires students to use locomotor movements to retrieve lettered tennis balls to form spelling words, define it, and use it in a sentence. Researchers have also found that school-based physical activity programs and physical education have a positive effect on motivation, attention, and student engagement in both the classroom and gymnasium (Ratey, 2008). Additionally, there are long-term health benefits including: the reduction of obesity, anxiety, and hypertension (Lengel & Kuczala, 2010; Ratey, 2008).

A Successful Partnership

Recently, two PETE courses at CCSU were revised to allow for the implementation of the PASS initiative through a partnership with Cromwell Public Schools. The *Methods of Teaching Elementary Physical Education* and *Adapted Physical Education* were taught in the field at the partner schools. Specifically, the PETE students taught content-rich PASS activities to K–5 students by becoming familiar with the common core mathematics and literacy content. At the end of the practicum experience, PASS lesson plans were collected and distributed to the elementary classroom teachers for continued implementation of the PASS initiative. As a result of the PASS implementation, many of the K–5 teachers have continued to use PASS activities with their students throughout the school day. Additionally, the superintendent has requested additional PASS training for all elementary faculty and staff members in the school district due to the positive responses from both students and faculty.

The MI Theory aims to target the primary intelligences of individual students in an effort to enrich student learning. The research has indicated the benefits of using MI Theory and implementing interdisciplinary teaching across the curriculum. The faculty has found this be a successful approach to teacher preparation in K–12 physical education.

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Urban Physical Education Teachers as Leaders

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Educational philosophers have often asked the question "Are exceptional teachers made or born?" School administrators concur that effective teachers communicate high expectations for students and they believe in themselves and their abilities to transmit a strong vision and standard for success. These successful teachers effectively communicate with their students using both non-verbal measures and overt acts that are known as a teacher's professional demeanor (Clements & Rady, 2012). A well-established teaching demeanor (outward behavior toward students) can reduce the likelihood of disruptive and disrespectful student behavior (Clements & Rady, 2012). Teacher training alone does not guarantee effective teaching without a well-established professional demeanor (Clements & Rady, 2012).

A physical education teacher's demeanor or outward behavior toward students includes verbal and non-verbal behaviors. Some teachers cheer their students' efforts, demonstrating obvious friendliness. Others put their students at ease with their calm or reassuring demeanor and exhibit an easy-going manner using a soft voice (Clements & Rady, 2012). At the opposite end of the spectrum are teachers who are inflexible and rigid and who are seen as having a cool or cold demeanor. This type of behavior reflects a somber demeanor, whereas a more refined demeanor suggests leadership qualities (Clements & Rady, 2012). The table below (Clements & Rady, 2012) illustrates examples of effective demeanor behaviors particularly appropriate for urban physical education teachers, in contrast to non-effective behaviors.

It is the teacher's responsibility to develop and demonstrate a professional demeanor that includes behaviors and actions such as smiling, being supportive and attuned to the students, and complementing student effort. Of vital importance for urban teachers is to maintain their normal professional demeanor in spite of trigger behaviors that may arise during a class. Triggers refer to difficult student behaviors prevalent in urban schools (e.g., profanity, use of abusive language, lewd gestures, and possibly violence) (Clements & Rady, 2012). A teacher should be prepared to maintain a preferred professional demeanor while teaching and when confronted with such triggers. An urban physical education teacher should identify his/her own preferred elements of professional demeanor and maintain them (e.g., approachabil-

Professional Demeanor Behaviors for Urban Physical Education Settings

Calm, patient, confident, enduring	versus	Anxious
Persistent, independent	versus	Indecisive
Dependable, reliable	versus	Absentminded
Flexible, versatile, optimistic	versus	Pessimistic
Ambitious, outgoing, energetic	versus	Timid
Poised, polite, tactful, tolerant, diplomatic	versus	Flustered
Having gravitas, determination	versus	Hesitant

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ity, manner of speaking and a tolerance for movement or noise). In the book, *Urban Physical Education: Instructional Practices and Cultural Activities,* which was coauthored with Dr. Rhonda Clements, the acronym "PRIDE" was presented to summarize a teacher's appropriate handling of a trigger that arises during a class. The "PRIDE" acronym is explained in the figure below from the book:

- **P**lace behavior or action as main focus of response
- **R**efrain from revealing frustration or anger
- **I**gnore the urge to yell at student
- **D**ismiss any intrusion into space of student
- **E**ncourage respectful interaction and avoid derogatory comments

While the foregoing emphasizes the positive behavior of the teacher to foster professional reactions to a trigger in class, the detrimental reactions that should be avoided, which can intensify issues and communicate derogatory messages to the students, are presented below, from another figure from the identified book.

Derogatory Messages to Avoid

- Ordering (e.g., "I said do it now, not tomorrow or when you feel like it")
- Interrogating ("What is your problem?"; "Is there something you want to tell the class?";"Why is Sharonna upset? Did you have something to do with that?")
- Refusing to listen ("I don't want to hear any more excuses")
- Labeling ("fashion queen," "trouble maker,""class clown")
- Threatening ("You had better stop that or else"; "The next time, you're out of here"; "If you break that pedometer, you're buying it")
- Moralizing ("I won't be surprised if you never finish anything in your life")

The stress experienced by a teacher faced with a trigger during a class should not be minimized. Some teachers who regularly are confronted with high-stress situations have created a mantra to chant in their mind when student behaviors erupt causing teacher stress and class chaos and even unsafe circumstances (Clements & Rady, 2012). Examples of mantras utilized by practicing teachers have included: "Never give up – never give in;" "Winners never quit;" "One day at a time;" "Great teachers do more;" and "Teach, don't talk." Most effective mantras are those specifically developed by a teacher because it provides personal meaning and significance.

It is very important to examine one's own teaching demeanor, particularly early in an individual's teaching career. The failure of new teachers to develop an appropriate and effective

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demeanor can be a factor in the greater frustrations they experience as new teachers, which contributes to the large number of new teachers that leave the profession within the first five years. It has been reported that one-third of all new teachers in the United States leave the profession within the first five years (Education Commission of the States, 2000). A common frustration of new and likely younger teachers is their failure in obtaining student respect and in achieving discipline and management to create an effective teaching environment. Respect and class conduct can be directly attributed to the teacher's outward behaviors and responses to challenging situations created by students. Teachers, early in their career, would greatly benefit from a self-analysis or peer review of their professional demeanor, which could improve their effectiveness and classroom management. This type of evaluation may enable new teachers to improve their demeanors, reduce frustrating experiences and reducetendencies to seek transfer from urban schools or to leave the profession altogether.

A way to develop or maintain a professional teaching demeanor is to explore personal qualities such as "gravitas" which is defined as a "sense of dignity, seriousness, and continued duty to task at hand" (NovaRoma.org). This quality may be reflected as an urban physical education teacher dresses the part, acts the part, and displays confidence and professionalism, regardless of encountered hardships.

A teacher who displays gravitas is usually more likely to handle off-task behavior before it becomes uncontrollable. Displaying behaviors that reflect the teacher's self-confidence such as good posture, standing straight, and having a strong "gym voice" are often attributes of successful urban physical education teachers (Clements & Rady, 2012). Informal interactions with students are also effective. These include:

- Whenever possible, physically participate with the students
- Show genuine effort when conveying teaching cues
- Respect limitations with a smile
- Praise success and encourage additional practice
- Check for student understanding
- Welcome student feedback

Effective urban physical education teachers also value the opportunity to respond to student life issues, since such issues may influence the teaching environment and can strengthen the teacher's rapport with the students and improve teaching success. Some life issues may include health-related issues such as acne and sexually transmitted diseases. Other life issues can include, for example, social issues that may be related to gang violence, teen alcoholism, teen pregnancy, suicide, and LGBT topics.

Teachers who focus on life issues and skills realize that a great number of students may not live in supporting home environments. Often a teacher may be the only adult that the student may feel comfortable asking a question regarding a life issue.

Many teachers and parents are aware of the saying that "Example is the best teacher." This phrase underscores the significance of the teacher's behavior. Students are observing whether their teachers exhibit professional behaviors at all times. It is absolutely essential for the teacher not to permit a student's behavior to trigger a personal reaction by the teacher, student, or other students. It is necessary for urban teachers to maintain a sense of professionalism even when they react to triggers in their classes.

Rady & Schmidt (2013) confirmed that a physical education teacher can impact the attitudes of students toward physical education. Results indicated that children in urban middle schools viewed the most important factor in their attitudes to the physical education curriculum to be teacher-infused enthusiasm, a teacher's emphasis on the importance and fun of physical education, and in creating the student's appreciation of the applicability of physical education throughout life.

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This research provides support for further review of our country's Physical Education Teacher Education Programs. This research (i.e. Rady & Schmidt, 2013) suggested that PETE undergraduate programs should provide students with at least one semester of teaching experience in an urban setting and present specific instruction in teaching techniques for classes having high diversity and multicultural compositions. This instruction and experience allow for more desirable candidates to fill the appreciable number of job opportunities in urban school districts. Urban school districts with their diverse and multicultural student bodies , continue to grow in student population and to face higher attrition rates of teachers. Together these factors will continue to provide job opportunities in urban school districts for new teachers. The proposed instruction and experience will also better prepare PETE graduates for teaching in other school district settings outside traditional urban locations. This is because more school districts outside of traditional urban locations are seeing increased diversity and multiculturalism in their student bodies. PETE programs should be directly preparing students to obtain teaching jobs and to be successful in their future professional careers.

It should not be surprising that urban physical education teachers have been given more than their proportionate share of leadership positions (Clements & Rady, 2012). Urban physical education teachers, faced with teaching in non-classroom environments and involving movements and actions of students which cause distractions from teaching and even safety issues, must develop and fine tune all of their teaching skills to succeed. Achieving success, especially in the urban setting, is an even greater accomplishment. Such physical education teachers are repeatedly identified as leaders because of the confidence, trust, and respect they have obtained from students, faculty and the administration. As several professionals have been attributed as stating: "Those who can do; those willing to do more; teach urban physical education" (Clements & Rady, 2012).

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