INDIANA AHPERD JOURNAL

Volume 40, Number 3 Fall Issue 2011

I -nvigorate

A -ctive

H -ealthy

P -repared

E -nergized

R -elevant

The **D** -oorway to the Future of IAHPERD

Indiana AHPERD Journal

Volume 40, Number 3 **Fall 2011**

Indiana Association for Health, Physical Education, Recreation, and Dance

Contents

President's Message 1
Lisa Angermeier
Attention IAHPERD Members 1
Notions from Your Editor… 2
Thomas H. Sawyer, EdD
Do Physical Activity and Health and Wellness Requirements Benefit University Students? 5
By Jeffrey L. Tincher
Goalie Options in Physical Education 8
By Donetta J. Cothran and Holly Aungst
The Transfer of Mental Skills: Examining Pre-Putt Routines Across Competition and Practice Settings 10
By Robert J. Bell, Kaleigh, J. Flippin, and Jocelyn E. Holden
Creatine Monohydrate: Safe and Effective? 14
By Erin Gilreath, Lawrence W. Judge, David Bellar, and Jeffrey Petersen
After School Running and Walking Program for Elementary Students... 21
By Renee E. Frimming and M. Jay Polsgrove
"PE: Play Everyday" – Promoting a Healthy Lifestyle for Youth in the Community 23
By Susan Hagood, Rebecca Zakrajsek, and Lora Walsh
Experiential Classroom Learning: Preparing Students for a Sport Event Management Experience 29
By Glenna G. Bower
Future AAHPERD National Conventions 35
Advocating for Physical Education: Local Initiatives and Resources Available through IAHPERD 36
By K. Andrew Richards
Indiana AHPERD Law Review 40
Edited by Thomas Sawyer, Guest Author: Tonya Gimbert

The **Journal** is published three times a year (Fall, Winter, Spring) by the Indiana Association for Health, Physical Education, Recreation, and Dance. Karen Hatch, 2007 Wilno Drive, Marion, IN 46952. Third class postage paid at Terre Haute, Indiana. The Indiana Association for Health, Physical Education, Recreation, and Dance is a professional organization serving education in these four related fields at the elementary, secondary, college, and community levels. Membership in Indiana AHPERD is open to any person interested in the educational fields listed above. Professional members pay annual dues of $40.00. Students pay $20.00. Institutional rate is $65.00. Make checks payable to IAHPERD, Karen Hatch, 2007 Wilno Drive, Marion, IN 46952, telephone (765) 664-8319, hatch@comteck.com.

CHANGE OF ADDRESS

In order to receive the **Indiana AHPERD Journal**, your change of address must be mailed to Karen Hatch, 2007 Wilno Drive, Marion, IN 46952. A change of address sent to the Post Office is not adequate since **Journals** are ***not*** forwarded. When individuals fail to send changes of address, a duplicate copy of the **Journal** cannot be mailed unless the request included funds in the amount of $5.00 to cover postage. Requests for missed issues will be honored for eight weeks following publication date.

POSTMASTER: Send address change to Karen Hatch, 2007 Wilno Drive, Marion, IN 46952.

Lisa Angermeier
Indiana University – Purdue University Indianapolis
901 W New York Street
Indianapolis, IN 46202
langerme@iupui.edu

2011 State Conference

I-nvigorate
A-ctive
H-ealthy
P-repared
E-nergized
R-elevant

The D-oorway to the Future of IAHPERD

Message from the President

President's Message

To my fellow IAHPERD members:

I hope this letter finds everyone rejuvenated after a great summer! Your Executive Committee has been working for you over the summer, and I would like to give you a few of those updates.

First, we made some important changes with our submission process and timeline for the state conference. Historically, conference proposals had to be submitted nearly seven months before the actual conference occurred. For years, many of us had questioned the logic behind this tradition. This year in addition to moving the deadline to June, we opened the call for proposals to everyone, not just members or people they knew. This will allow us to build a more robust and innovative state conference rather than recycling the same ideas again and again. My hope is that this new timeline and process will continue to strengthen and build the best conference experience possible for our members.

Second, our website is in the process of being redesigned. Thanks to all of you who gave us feedback about ways to make improvements to it. This is such a crucial communication tool, so it is imperative that we make it the best it can be.

Third, Dr. Thomas Sawyer has informed us that he will be retiring as editor of our journal in four years. This is an excellent time for our association to examine the journal and determine if we want to continue with it in its current format or if we want to explore other options. Those of you who attended the retreat in April might recall we discussed this briefly. I do not believe everyone's voice was heard, so I want us to continue this discussion in more formal and informal ways where everyone's voice can be heard. This is the time to ask some potentially difficult, but necessary questions. How many of our members truly read and utilize the journal? Do the benefits of producing and printing the journal outweigh the costs? Does the quality of the journal reflect what we want our association to be?

Share your Journal with a friend

Finally, we were contacted by a representative from the Indiana Department of Education to assist in developing a working group of teachers in currently untested subjects to discuss the implementation of the recently-passed legislation, specifically as it relates to using assessments to measure student performance and gather data as part of an evaluation. Names of physical education teachers across the state were submitted to the IDOE representative, and their first meeting is scheduled for mid-August. It is encouraging that we were invited to the discussion. I look forward to hearing updates as their work progresses.

We look forward to seeing you November 9-11, 2011 at the Wyndham Indianapolis West for our state conference -- **I*nvigorate* – A*ctive* – H*ealthy* – P*repared* – E*nergized* – R*elevant* – The Doorway to the Future of IAHPERD.**

Respectfully yours,
Lisa K. Angermeier, PhD, MCHES
IAHPERD President

Attention IAHPERD Members

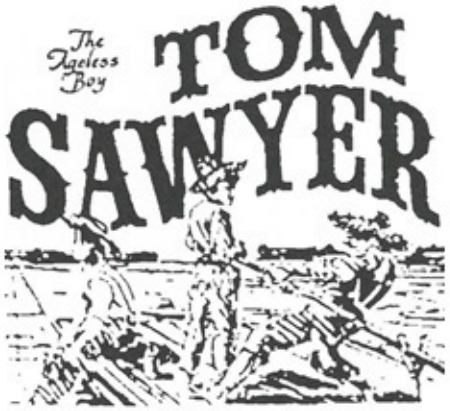
As an association, in the future more of our communications will be done through e-mail. If you did not receive an e-mail in January or February from: indianaahperd@aol.com – please update your e-mail address.

This may be done by e-mailing your current e-mail, name, and address to: indianaahperd@aol.com.

Any questions? Contact Karen Hatch, Indiana AHPERD Executive Director at the above e-mail or by telephone at: 765-664-8319.

Thanks for keeping the IAHPERD membership records up-to-date.

NOTIONS from YOUR EDITOR...



Thomas H. Sawyer, Ed.D., Professor, NAS Fellow
Graduate Coordinator for Sport Management
Professor of Kinesiology Recreation, and Sport
Department of Kinesiology, Recreation, and Sport
Indiana State University
Terre Haute, IN 47809
(812) 240-0872, (812) 237-2645
thomas.sawyer@indstate.edu

Reprinted with permission *Journal of Physical Education, Recreation , and Dance* 2011

Supervision: A Key To Safe Physical Education Classes
Hutts V. Western Heights Independent School District No. 1–41 Of Oklahoma County

2011 WL 1632376
Court of Civil Appeals of Oklahoma, Division No. 2
January 25, 2011

Background

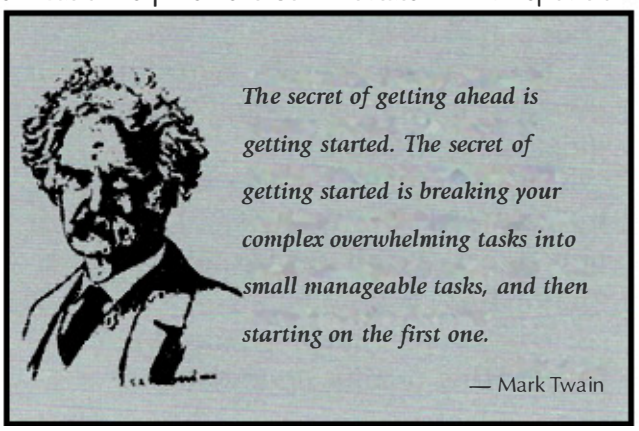
Parent of student who was injured while participating in a weightlifting class that fulfilled his physical education requirement brought negligence action against school district. The District Court, Oklahoma County, entered summary judgment for school district and parent appealed.

Holding

The issue is whether participation in an activity during a weightlifting class that fulfills the physical education requirement, wherein each student attempts to lift more than he/she lifted earlier in the school year but not in competition with one another, constitutes "participation in … any … athletic contest" pursuant to the Oklahoma statute. (51 Okl.St.Ann. § 155(20). The Court finds that it does not and, therefore, the appeals court reverses the trial court's grant of summary judgment in favor of Western Heights and remands this case to the trial court for further proceedings.

Facts of the Case

Student was injured while participating in a first-period weightlifting class that fulfilled his physical education requirement. Student stated in his deposition that he did not choose to take the weightlifting class but that it was assigned to him by Western Heights.



Student was required to attempt a maximum lift for a weightlifting exercise known as a "squat" that would account for a portion of his overall grade. The weightlifting teacher had recorded a "max" for each student at the beginning of the nine-week grading block and at the end of the nine-weeks, each student was expected to increase his/her maximum lift. Student was injured when he collapsed while attempting a maximum squat at the end of a nine-week grading block. Although Student was attempting to squat 240 pounds to exceed his own previous maximum lift in order to "make sure to pass the class", he was neither competing against other students nor practicing for a future competition against other students.

Analysis of the Case

In determining whether the student's attempt to squat an increased amount of weight during his weightlifting class constitutes "participation in ... any interscholastic or other athletic contest," the court is guided by two Oklahoma Supreme Court decisions. In *Curtis v. Board of Education of Sayre Public Schools* (1995 OK 119, 914 P.2d 656), the injured party was a 12–year-old boy who was participating in a softball game during a physical education class. He was instructed by his teacher to play the position of catcher; but, he was not provided with a catcher's mask. He was injured thereafter when he was hit in the mouth by a baseball bat.

The issue presented to the Oklahoma Supreme Court was whether § 155(20) provided governmental immunity for school-sponsored athletic contests which were not interscholastic athletic contests. The Court held that the exemption did bar the action because although the law had originally only applied to injuries sustained in interscholastic contests (such as

between two high school football teams), the legislature had amended the provision to apply also to "other athletic contests". (*Id.* at ¶ 9, 914 P.2d at 659) The Court held that § 155 (20) "encompasses participation in or practice for any athletic or sports competition where participants strive for superiority or victory, whether interscholastic or not, sponsored or conducted by or on the property of the state or political subdivision." (*Id.* at ¶ 13, 914 P.2d at 660)

> Importantly, the Court adopted the following definitions: The word "athletic" is defined as pertaining to, or befitting athletics or athletes. "Athletics" is defined as athletic activities, as competitive sports" or "the principles or system of athletic exercises and training, while the word "athlete" is primarily defined as "one who takes part in competitive sports." The word "contest" is defined as a struggle for superiority or victory between rivals" or "a competition." (*Id.* at ¶ 12, 914 P.2d at 659)
>
> The Court then stated:
>
> Applying the above definitions to the facts of this case, the Court concluded that the phrase "athletic contest" is sufficiently broad to encompass a physical education class softball game. Clearly, softball is a competitive sport where participant/team members strive to defeat an opposing team. (*Id.*)

In *Evans v. Oaks Mission Public School* (1997 OK 97, 945 P.2d 492), the injured party was a high school student who injured his shoulder in a wrestling match during a physical education class. The student had previously played in interscholastic team sports at his school, but twice injured his shoulder, once during football practice and the other time during a pick-up basketball game. At the direction of his parents, the young man was to "sit out" his junior year in order to return to team sports his senior year. However, he enrolled in a physical education class with his parents' knowledge. The Oklahoma Supreme Court found that the case was controlled by *Curtis.* The Court ruled that § 155(20) did bar the action to recover for the student›s injury because it was unrefuted "(1) that the injury ... occurred while the student was participating in a wrestling match, an athletic contest, during his physical education class, and (2) that the injury occurred on school property." (*Id.* at ¶ 9, 945 P.2d at 494)

As in *Curtis* and *Evans*, the student was injured during a physical education (i.e., weightlifting) class and the injury occurred on school property. However, the Court must determine whether the athletic activity of the student was participating in at the time of his injury constitutes an "athletic contest" pursuant to § 155(20). Hutts argues that because a student was not participating in (or practicing for) an athletic competition with opposing sides or teams striving for victory over one another, such as wrestling (as in *Evans*) or softball (as in *Curtis*), that student was not participating in any "athletic contest" pursuant to § 155(20). The Court agrees.

The student was not striving for victory or superiority over another classmate or classmates as in wrestling or softball, the student was not participating as part of a "powerlifting" team, and the student was not practicing for any future athletic competition. Instead, the student was attempting to increase his personal "maximum lift". As quoted above, the Oklahoma Supreme Court in Curtis adopted a definition of "contest" requiring "a struggle for superiority or victory *between rivals*" or "a *competition* …." (*Curtis* at ¶ 12, 914 P.2d at 659)

Pursuant to this definition, the Court concluded that participation in a game of softball constitutes participation in an athletic contest because "softball is a competitive sport where participant/ team members strive to defeat an opposing team." (*Id.*)

Although the student was participating in a weightlifting exercise wherein he and his fellow students were striving to exceed past performances to attain new and superior *personal* bests, there was no competition between the students as occurred in *Evans* (wrestling) and *Curtis* (softball). Moreover, although § 155(20) applies where a student is "practicing for" an "athletic contest", it is undisputed that Student was not doing so. Therefore, this Court is constrained to find that the student was not practicing for or participating in an "athletic contest" as that term is defined in *Curtis* and as it is applied in both *Curtis* and *Evans*. This court declines to broaden the scope of § 155(20) beyond that delineated by the Oklahoma Supreme Court.

Risk Management Tips

The following are a few recommended risk management suggestions to reduce liability and increase safety for students involved in required physical education weight lifting classes:

- A qualified supervisor is a person who has adequate education and certification to perform the specific tasks assigned. The physical educator assigned to teaching a weight lifting class should be certified by the National Strength and Conditioning Association (NCSA).
- The duties commonly assigned to a physical education teacher teaching weight lifting regarding supervision as describe by the NCSA consist of the following:
  - Supervise exercise texting and/or exercise,
  - Plan appropriate exercise programs,
  - Present clear warnings of inherent risks within exercise testing and exercise environment,
  - Be able to evaluate injury or incapacity,
  - Properly matching participants to appropriate exercise programs, and
  - Administer first aid, CPR, and activate the emergency medical system.
- Supervision is a learned skill and physical education professionals should be trained to supervise weight lifting classes properly.
- When providing supervision, the physical educator must take into consideration the following aspects:
  - What should the supervisor look for,
  - What should the supervisor listen for,
  - Where should the supervisor stand,

- How should the supervisor move around,
- What should the supervisor do of a problem arises,
- Identify all potential dangerous activities,
- How close should the supervisor be to the activity,
- Understand the warning signs of impending trouble during an activity or in a client, and
- Establish a "stop signal" that can be used when the supervisor must immediately suspend activity.
- A supervision plan should include the following considerations relating to supervision:
- Develop a detailed general and specific supervision plan to be utilized by all personnel involve with students,
- Make sure that all supervisors are qualified, competent, and have the appropriate certifications necessary to supervise the activity,
- Never leave the area unattended,
- Make sure that every supervisor understands all aspects of the activity program being performed,
- Provide adequate spotting, and
- Do not be too close to the activity nor too far away.

Conference Information at www.inahperd.org

- Sample Supervision Plan for a Weight Lifting Class
- Check to see that all weight bars, collars, and plates are functional and safe for use.
- Check all pulleys, cables, and pins in every weight machine.
- Check to make sure that treadmills are set on 0% incline and 0 MPH.
- Check to see that all weight racks (squat, etc.) are secured to the floor and wall for the greatest stability of lifters.
- Be prepared to provide spotting assistance when needed.
- Assist all clients in proper lifting techniques.
- Watch all lifters and correct improper lifting techniques when possible.
- Help the clients establish their maximum and target heart rates.
- Instruct all free weight lifters to use collars and replace weights when finished lifting.
- Instruct all machine users to secure the selector pin before lifting the weight selected.
- Instruct treadmill users to reset treadmill at 0% incline and 0 MPH.
- Instruct treadmill users to place feet on both sides of treadmill before starting the treadmill then step on the treadmill.
- Recommend to all free lifters that a spotter be present when using heavy weights (weights greater than body weight),
- Instruct all free lifters to use weight racks when lifting heavy weights.
- Make sure that all physical educators are qualified, competent, and have the appropriate certifications necessary to supervise the activity.
- Make sure that every supervisor understands all aspects of the exercise programs being performed.

References

Curtis v. Board of Education of Sayre Public Schools, 1995 OK 119, 914 P.2d 656.

Evans v. Oaks Mission Public School,1997 OK 97, 945 P.2d 492.

51 Okl.St.Ann. § 155(20).

Sawyer, T.H. (2008) *Indiana LANSE: A Coaching Education Program Designed for Indiana Coaches* (4th Ed), Terre Haute, IN: Indiana Center for Sport Education, Inc., Chapter 1, pgs 5-26.

Share Your Journal with a Colleague or Student

Do Physical Activity and Health and Wellness Requirements Benefit University Students?

By Jeffrey L. Tincher
Contact Information:
Jeffrey L. Tincher

Abstract

Some colleges and universities require students to take one or two physical activity courses, or a health and wellness course that may or may not include physical activity, as a part of their general education curriculum. In an online check of the 4 or 5 "larger" institutions of higher education in Indiana, all of the schools offer physical activity courses or health and wellness courses but only two (Indiana State University and Ball State University) require them for graduation. In light of statistics from the CDC that 33% of the population of the United States falls into the obese category with a body mass index (BMI) greater than 30, another 33% falls into the overweight category with a BMI between 25 and 29.9, and that there is an alarming increase in deaths attributable to chronic diseases related to lifestyle choices the question could be asked; should all institutions of higher education require physical activity in their general education curriculum? To support the inclusion of physical activity or health and wellness courses as graduation requirements, more research needs to be done to evaluate their effectiveness and whether they provide students with health benefits? This study's goal was to determine if students enrolled in a required health and wellness course that includes a physical activity lab at Indiana State University are receiving any physical benefit from the course.

Introduction

Should colleges and universities require activity courses or a health and wellness course that includes physical activity? I believe that physical educators at all levels would respond with a resounding "yes". But not everyone at institutions of higher education is of the same opinion. Some believe that by the time young men and women enter higher education they have had enough physical education and the decision to participate in physical activity, or exercise, should be up to the individual. During a recent University meeting I was asked by a professor from the English Department asked why the University still required a health and wellness course that included a physical activity component for graduation. He felt that since students had participated in physical education throughout their entire public school education they surely didn't need any more. Before offering an explanation I asked him why the University required students to take a freshman writing class when they had been writing throughout their entire elementary, middle, and high school education. His response was to look at me in disbelief and state "that course is required because writing is important". From his viewpoint physical education, and especially physical activity, wasn't important; it had no place in a university's curriculum. Not only are there members of the faculty who believe there is no need for health and wellness education and physical activity in higher education, students themselves often question why they are being required to take a course that requires physical activity.

In spite of the opinion the aforementioned English professor and some students, a few institutions of higher education still require students to take physical activity courses, or a health and wellness course that includes physical activity. At Indiana State University this course is called PE 101: Fitness for Life. The class meets three days a week and is delivered to the students through a combination of lecture, activity lab, and the internet. One day each week the students meet in a large group lecture (100 to 140 students) that covers a wide range of topics; overweight and obesity trends, chronic lifestyle diseases, weight maintenance, physical activity program prescription, and various current health issues that may affect students during college and later in life. Two days a week the students attend an activity lab (30 to 35 students) that is designed to expose them to a variety of physical activities. The activity lab consists of 3 sections; walk/jog, aerobics and group activities, and weight training, each section lasting five weeks. The labs are taught by graduate students from the Physical Education department, and one of the goals of the lab is to provide 40 minutes of activity each session. Another purpose of the lab is to provide students with multiple options for activity in the hope they will find something they enjoy and will continue to do after they have completed the course. The online portion of the course uses Blackboard technology

to quiz students on information found at various internet web sites (i.e. the CDC, the National Institute of Health, arthritis.org, obesity.org, etc.). Since the course is a general education requirement, all students must take it to graduate from ISU. Approximately 700-800 students enroll in the course each semester, and 95% of the students are first or second semester freshmen ...

Methodology

At the beginning of each semester all students enrolled in PE 101 are pre-tested on the 5 components of health related physical fitness; aerobic endurance, muscular strength, muscular endurance, flexibility, and body composition. 'The specific tests are; height and weight measurements which are used to calculate body mass index (BMI), hand grip strength (muscular strength), a 60 second maximum push-up test and a 60 second maximum sit-up test, (muscular endurance), blood pressure, 3 minute step test (aerobic endurance), and a 3 site skin fold assessment used to calculate their percent body fat. At the end of the semester three of the measures are repeated; height, weight, and the 3 minute step test.

Results

A statistical analysis of the data collected in the pre- and post-testing done in PE 101 over a five semester period (n=1124) shows that students enrolled in the course lose an average of.8 pounds during the semester, a statistically significant loss, $t(1000)=2.74$, $p<.05$. Also, their heart rate in the 3 minute step test decreased by 3 beats per minute over the course ofthe semester, a statistically significant decrease, $t(1,000)=2.17$, $p<.05$.

Table 1. Pre and post-test average weight and heart rate (n=1124)

Measure	Pre-test	Post-test
Weight	167.52 lbs.	166.69 lbs.
Heart rate	152.96 bpm	150.1 bpm

Discussion

The weight loss and decrease in heart rate exhibited by PE 101 students may at first appear minimal and not indicate a significant improvement, but a look at the current research on the population that is being dealt with in the course (college freshman) shows it is significant (as does the statistical analysis). While the notion that college students gain 15 pounds in their first year, the mythical "freshman IS", may not be entirely true, research shows that first year college students do gain weight. Mihalopoulos, Auinger, and Klein (2008) conducted a study that placed the weight gain of first year college students at around 3 pounds per student and concluded that freshman weight gain was 5.5 times greater than that experienced by the general population. Others studies have shown that the weight gained by college freshmen varies by institution, with gains ranging anywhere from 4 to 8 pounds (Hellmich, 2006).

Further research needs to be conducted to determine if the students in PE 101 actually differ from those at the University who are not enrolled in the course. There has been little, if any, data collected at Indiana State University to determine whether students who are **not** enrolled in PE 101 lose weight and improve their aerobic capacity over the course of their first or second semester. And follow-up studies on whether students who complete PE 101 continue their physical activity after the class has ended, or even a longer term study to see if they take up physical activity after they have finished college would further reinforce the effectiveness of PE 101.

In reviews of the current literature few studies were found that looked at the effectiveness of activity requirements at the college and university level. The Obesity Society, an organization dedicated to the study of obesity, refers to the results of a study done to assess the effectiveness of a program at the University of Sherbrooke in Quebec. The goal of the program was to help first year students avoid weight gain (www.obesity.org/new/archive/20041115a.asp). The researchers found that students enrolled in a first year seminar that focused on improving and maintaining healthy lifestyles lost an average of half a pound, compared to students not enrolled in the seminar who gained an average of 4 pounds in their first year. Further analysis of the data collected at Indiana State University, and collection of additional data, needs to be done to determine whether an increase in health knowledge alone could contribute to weight loss, and improved health, in students enrolled in PE 101.

Conclusion

According to the CDC "to achieve important health benefits adults need at least 150 minutes of moderate-intensity aerobic activity every week and muscle-strengthening activities on two or more days a week that work all major muscle groups OR 75 minutes of vigorous intensity aerobic activity every week and muscle-strengthening activities on two or more days a week that work all major muscle groups" (www.cdc.gov/physicalactivity/everyone/guidelines/adults.html). There is no mention of any reason to decrease physical activity as we grow older; in fact the CDC states that "As an older adult, regular physical activity is one of the most important things you can do for your health" (http://www.cdc.gov/physicalactivity/everyone/guidelines/olderadults.html).

PE 101 requires students enrolled in the course perform 80 minutes of moderate intensity physical activity each week. Even though this is below the CDC's recommendations, the course, especially the physical activity component, has shown to positively impact students' health for the semester they are enrolled in the course and has a goal of helping students establish a regular physical activity routine they can continue after the course has ended.

In light of this information I believe that physical activity courses are a useful and necessary part of the higher education curriculum, and activity courses or a health and wellness course with a physical activity component should be required at all institutions of higher education.

References

1. Center for Disease Control (2008). How Much Physical Activity Do Adults Need? Retrieved October 28th, 2009 from http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html

2. Center for Disease Control (2008). How Much Physical Activity Do Older Adults Need? Retrieved October 28th, 2009 from http://www.cdc.gov/physicalactivity/everyone/guidelines/olderadults.html

3. The Obesity Society (2004). Youth Weight-Loss: What Schools Can Do to Help Stem the Tide of Childhood Obesity. Retrieved October 17th, 2009 from http://www.obesity.org/news/archive/20041115a.asp

4. Hellmich, N. (2006). Freshman 15 Down to Just 8. USA Today, October 23rd, 2006.

5. Mihalopoulos, N., Auinger, P., Klein, J. (2008). The Freshman 15: Is It Real? *Journal of American College Health*, 56(5), 531-533.

Share your Journal with your coach or teacher

Looking for a Chance to be Published?

THE Indiana AHPERD JOURNAL IS REFEREED.

Students
Graduate Students
Teachers At All Levels

Goalie Options in Physical Education

By Donetta J. Cothran and Holly Aungst
Contact Information:
Donetta J. Cothran, Ph.D.
HPER 179
Indiana University
Bloomington, IN

Goalies, who needs them? Certainly traditional forms of many team sports (e.g., soccer, lacrosse, hockey, team handball) involve a goalie position. At the varsity level, or in advanced recreational sport the goalie position is a very specialized one that often comes with separate coaches and practice opportunities. That specialization is necessary due to the unique skills of the position as well as the risk of injury the goalie faces. The goalie position in physical education presents a unique set of challenges as: 1) we rarely teach or practice goalie skills, 2) goalies need lots of space to react (e.g., outdoor soccer and the box area) and/or 3) need lots of protective equipment (e.g., ice or field hockey). The challenge is particularly problematic when weather forces traditional outside field sports like soccer indoors. The good news is that if you are trapped indoors, want to involve more students in an active modified game, or are looking for variety for your unit there are several simple ways to change the traditional goalie position.

Have you ever considered playing the game without a goalie? The thrill of the game for most students is scoring and no goalie means more students will enjoy the excitement of scoring a goal. Simply modify the goal's shape and size to provide a small target that rewards accuracy. Indoors an upright gymnastics mat can work well. If your students are skilled simply fold the mat and make the goal smaller. Or mark a smaller goal on the mat with tape and award one point for hitting the mat but two points for hitting the smaller target on the mat. You can also use cones. For team handball a real challenge is to have a cone with a ball on top and to score the ball must be knocked off with the throw. To increase the challenge, increase the distance from which your students must shoot. If you are outdoors, use long jump ropes or old sheets to divide the traditional soccer goal in half and let the teams fire away!

Remember one purpose of modified games is to get students excited about a sport so they can learn to appreciate and enjoy the traditional game either as a player or a spectator. We have no doubt that most of your students would prefer to go to the locker room having won a soccer game by a score of 25-24 than 1-0. Appreciating the 1-0 score and goalie skills can come with time, but it can start in a short unit in your class.

Another fun variation is to make the offensive team supply their own goalie. Instead of a team attacking a goalie who may or may not have the skills to defend themselves, much less the goal, the object becomes offensive team cooperation. The offensive team scores only when their goalie is able to catch the object that has been kicked/thrown. The offense is forced to work on accuracy and teamwork and "the goalie position becomes a very important one where highly skilled players will want to be rather than a position where a team tries to hide the weakest link. You may choose to restrict the goalie to a small space (standing inside a hula hoop or one foot on a poly spot at all times) so the offense has to work harder to score. You might also choose to have more than one cooperative goalie along the goal line so that the offense has more strategy options.

If you do want to use a goalie but are stuck indoors, then re-think the equipment (soft balls only!), space, and how the game is structured. Mass soccer is a fast moving game that focuses on team passing and fitness while ensuring that everyone has a chance to play goalie. Imagine your gym set up with four, or even six, places to score instead of two. Create teams by dividing the class into as many players as you have goals. For example, if there are six goals then make six teams. One team is designated goalie duty while the rest of the class plays offense and tries to score anywhere and everywhere. You can play this game with only one ball but it's more fun and more practice trials to let every team have a ball. This arrangement allows students the opportunity to still experience playing goalie but takes some pressure off the position. If you started with one ball and want to add to the excitement, add another ball or two. You could also make each goal different from the others. Maybe one is an upright mat, another is a set of cones, another is a net, etc.

Another option in Mass Soccer is to have each team assigned to a specific goal. Players on that team take turns rotating through the roles of goalie,

defense (1-2 players who are tasked to stay at the home goal), and offense (remaining players who are free to attack any goal). If you have very large classes you might want to divide your initial teams up into two smaller groups. Team #1 then has a Team A and Team B. When Team A is on the court it's Team B's job to cheer for their teammates, offer coaching tips, and chase loose balls. After a designated time interval, stop the game and rotate assignments.

If you would rather work on more traditional offensive and defensive skills indoors then re-think how you use the space ... play with one goal! In this game, divide your class into teams of 4-5. The first team becomes the defense on one end of the basketball court. The remaining teams line up under the opposite goal and each team has a ball. Use the 3-point basketball line as your crease/box area to allow the goalie some protection. The first offensive team attacks and has 30 seconds to attempt to score. They get one shot and either score or must retrieve their ball and return to the end of the offensive line. As soon as Team 1 is off the court Team 2 attacks the defense. Rotate the defense after every team has attempted to score. You can even change the scoring so that the defense earns a point for every missed shot and the only way to score in the game is with defensive points. If you really want to emphasize the defensive skills then award 2 points for an intercepted pass and 1 point for missed shots. In contrast to the two goals on a court arrangement which often ends up cluttered and with no safety zone for the goalie, this game arrangement allows the offense sufficient space to actually practice their attack and encourages the defensive team to put their best player in goal as the attacks will come fast and furious.

So who needs a goalie? Maybe you and your students do, but maybe you do not. We often spend too much time playing the "real" game version of a sport in physical education at the cost of student engagement, success, and in the case of goalies, sometimes safety. There are many ways to modify games to include more students and allow greater success. So if your goal is increase student learning, engagement, and fun then give these goalie and game options a try. We bet you score big!

The Transfer of Mental Skills: Examining Pre-Putt Routines Across Competition and Practice Settings

By Robert J. Bell, Kaleigh, J. Flippin, and Jocelyn E. Holden
Contact Information:
Robert J. Bell, PhD
HP222-E
Ball State University
Muncie, IN 47306
Phone: 765.285.3286
Fax: 765.285.3286
Email: Robbell@bsu.edu

Abstract

Whereas research has addressed temporal and behavioral consistencies within pre-performance routines (Lonsdale & Tam, 2007), research to date has yet to examine whether these consistencies exist across settings. The pre-putt routines of elite collegiate golfers were observed across practice and competition. Statistical analysis of the data found that there were no significant differences in the golfer's routines from practice and competition. Findings suggest that pre-putting routines remain consistent across type of play. While performance was not significantly correlated with consistency in routine; the current research suggests a strong relationship between a players practice behaviors and their subsequent competition behaviors.

Keywords: Putting, Golf, Pre-performance routines

Introduction

Pre-performance routines are cognitions and behaviors implemented to help athletes focus on task-relevant cues (Weinberg & Gould, 2007). It has been suggested that pre-performance routines may aid in enhancing "arousal level, thoughts, performance expectancy, and attentional focus" (Singer, 2002, pg. 359) and research supports that the presence of consistent routines increase success during competition (Czech, Ploszay, & Burke, 2004; Gayton, Cielinski, Francis-Keniston, & Hearns, 1989; Lobmeyer & Wasserman, 1986).

The amount of time a player spends in preparation for skill execution is positively correlated with performance (Jackson, 2003; Bell, Cox & Finch, 2010a; Wrisberg & Pein, 1992). Furthermore, those with consistent behavioral routines are more likely to achieve success in competition (Lonsdale & Tam, 2007; Czech et al., 2004). Lonsdale and Tam (2007) found that professional basketball players who followed their pre-performance routine were significantly more successful (83.77%) when attempting free throw shots compared to those who deviated from their routine (71.43%). Similarly, Czech and colleagues (2004) found that players with a consistent pre-shot routine (characterized by behaviors occurring at least 90% of the time) were more likely to make the shot as opposed to players who deviated from their routine.

Putting in golf consumes nearly 40% of a golfer's total strokes (Pelz, 2000). Despite this, PGA professionals still miss approximately 45% of attempted 6-foot putts (Diaz, 1989; Graham, 2010). To better understand the cognitive and behavioral factors accompanying a pre-putt routine, Cotterill, Sanders, and Collins (2010) interviewed six international golfers on the "nature and function" of their routines. Participants stated numerous tendencies such as "practice stroke, reading the line, placing the ball, setting the grip, and setting the stance" (Cotterill et al., 2010, p. 59). All players described feelings of ill preparedness when deviating from their specific pre-shot routine. In addition to qualitative analysis, performance data has revealed support for consistent pre-putt routines. Bell et al., (2010a) examined the pre-putt routines of elite collegiate golfers during actual competition for putts between three and six feet, and results revealed that duration of their pre-putt routine was a significant predictor of whether or not the putt was made.

Given the importance of putting and that established pre-performance routines greatly benefit performers, (McCann, Lavallee, & Lavallee, 2001; Bell et al., 2010a) further examination of pre-

performance routines remain critical. Despite the many avenues of pre-performance routine research, the transfer of routines across settings has not been readily explored.

Motor behavior research has examined in depth the process of skill acquisition in sports (Williams & Hodges, 2005). Transfer of learning theory suggests that what a player learns and applies in specific settings may have a significant impact on their performance in a related setting (for a complete review see Schmidt & Wrisberg, 2008). For instance, Holt, Ward, & Wallhead (2006) compared two practice styles and the subsequent play of two soccer teams. The researchers utilized a single-subject design that simulated difficult situations in practice requiring precise responses. Results revealed that as players became more consistent in their practice, the amount of transference between practice and competition increased. More so, a lack of transference occurred if players unsuccessfully performed in practice situations.

It is difficult, however, to measure the transfer and importance of mental skills across settings. Constructs such as concentration, decision-making, and/or confidence in applied settings must first be quantified and behaviors must be observed across settings. The difficulty in assessing these related constructs has also made it increasingly complicated to demonstrate the effectiveness to practitioners (Williams & Hodges, 2005). Thus, while the transfer of learning has been examined in different areas, a gap still remains in the potential transfer of mental skills. Past research has shown the involvement of mental skills within pre-performance routines (Singer, 2002). It is logical to examine the transfer of pre-putt routines of collegiate golfers across practice and competition settings. Due to the consistency of pre-putt routines in previous studies (Bell et al., 2010a), the authors hypothesized that pre-putt routines would transfer across settings in practice and competition and also result in positive outcomes.

Method

Participants

A collegiate golf team, consisting of 11-male golfers, was selected for this research study. Each of the golfers was assumed to be elite and possess a handicap of less than five. Participants' putting routines were observed in a naturalistic setting, which allowed for the researchers to study each golfer's individualized routine in depth (Wrisberg, Cassidy, Morgan, Cherry, 2008).

Data Collection

Naturalistic observation of pre-performance routines occurred during the fall of 2010 at three separate golf courses similar in difficulty and course rating. The primary investigator was present for all data collection. A second investigator was present for 25% of all data collection and the inter-observer reliability was confirmed for 100% of all measurements. Data collected included: a players timing of their putting routine, amount of practice strokes, number of glances at the hole, players putting accuracy, and the score for the hole (Bell et al., 2010a).

Research Design

This study followed a within-subject analysis of each player. Putting distances from three to six feet were documented. Due to the naturalistic observation of the study, the current design followed past protocol for measuring distance of putts utilized in the study (Bell et al., 2010a). Putts of less than three feet were excluded assuming to have limited pre-putt routine requirements. Furthermore, putts over six feet were also excluded due to the increasing difficulty and lower percentage of putts made.

Type of Play

Two different types of play were recorded over the course of the collection period. Qualifying and tournament play were labeled as follows.

Qualifying - During this type of play, golfers were competing against one another for the top five spots on the team. It was assumed that pre-putt routines would be utilized because of the incentive to make the top five in order to play in the tournament. Athletes were normally in groups of three and completed a full 18 holes.

Tournament – This type of play was similar to qualifying play. The top five players from qualifying play then competed against other Universities in tournament play. It was assumed pre-putt routines would be again utilized.

To allow for sufficient data on each of the golfers, qualifying and tournament play were grouped together and labeled as "competitive play."

Data Collection Procedures

Baseline

After competitive play data collection took place during the fall, each golfer was asked to participate in a putting competition on the practice green. The purpose was to establish individualized baseline data for each golfer. Golfers provided informed consent before being asked to complete four different, five-foot putts. Participants were read aloud the instructions and golfers were requested to complete their pre-putt routine and that the objective was to make the putt. At the conclusion of the baseline data, golfers were told the purpose of the putting study.

Time

Past research has indicated that temporal consistency of performance routines may be a significant factor of performance success (Bell et al., 2010a; Wrisberg, et al., 2008) and the current study followed past research design on data collection regarding time (Bell et al., 2010a). Stopwatch timing began as soon as the player picked up their ball marker and timing continued until the player initiated the stroke. Data including deviations in routine (i.e. walking to the other side of the green or chatting with teammates/coaches, etc.) were omitted from further analysis.

Putting strokes and glances

The number of putting strokes taken by a player was noted due to its consistency across golfers and ease of measurement. A similarly consistent behavior is a player's sideways glance towards the hole during a pre-putt routine. This action was measured to establish each player's behaviors during their pre-putt routine. Wrisberg et al. (2008) suggested that a player's increase in glances may suggest low confidence while less frequent glances may

correlate with higher confidence.

Putt Accuracy

In addition to measuring the consistency of each player's routine, researchers also noted the outcome of the putt. The score as well as the outcome (made or missed) was recorded following completion of the putt. The score of the hole was recorded to allow for possible post hoc tests revealing the effects of pressure on pre-putt routines.

Results

In order to test for pre-putt routine consistency, three paired samples t-tests were employed to compare practice and competition pre-putt routines of collegiate golfers. Variables assessed included time, number of swings, and number of looks. The baseline average of each of these variables was compared to the competition average (see Table 1).

Table 1. Paired Samples T-Tests

	M	Std. Deviation	t	Sig. (2-tailed)
Average Time	3.367	9.116	1.225	.249
Average Swings	.092	1.100	.279	.786
Average Looks	-.017	1.202	-.046	.964

Indicating consistency in pre-putt routines between practice and competition, no variables were found to show significant differences between practice and competition pre-putt routines. Practice average time (M = 22.03, SD = 5.43) did not significantly differ from competition time (M = 18.67, SD = 8.72), t = 1.225, p = .249, two-tailed. Similarly, the average number of practice swings (M = 2.20, SD = 0.65) was not significantly different from the average number of competition swings (M = 2.11, SD = 1.00), t = 0.279, p = .786, two-tailed. Average looks taken during practice (M = 3.20, SD = 0.77) did not significantly differ from competition (M = 3.22, SD = .46), t = -0.046, p = .964, two-tailed.

A logistic regression was also performed, predicting whether the putt was made or missed, dependent upon the consistency of the player's routine. Predictors were consistency in time, consistency in number of swings and consistency in number of looks. Consistency for each part of a player's routine (time, swings and looks) was defined as the absolute value of the player's competition score minus their baseline average. Thus, a larger value would indicate less consistency and a value closer to zero would indicate more consistency. A random factor for person was also included to account for the individual differences between players. The logistic regression model was non-significant $p > .05$ indicating consistency of a player's routine was not predictive of whether the shot was made. In addition, none of the predictors (fixed or random effects) were significant ($p > .05$).

Discussion

The current study examined pre-putt routines of elite golfers across practice and competition settings. Research has addressed the importance of pre-putt routines, however, the transfer of pre-putt routines across practice and competition settings has not been examined. Results revealed that the participants followed a consistent pre-putt routine (time, swings, glances, putt accuracy) across both practice and competition. While this suggests a carryover of skills from practice to competition, logistic regression results did not show a significant relationship between more consistent pre-putt routines and higher levels of performance.

Past research with pre-performance routines has shown that temporal and behavioral consistencies are related to successful outcomes in sport (Lonsdale & Tam, 2008; Jackson, 2003). Bell et al. (2010a) also found that golfers having a consistent preparation time were more likely to successfully execute the putt. Pre-performance routines are intended for the performer to perform "automatically" without undue conscious control over the intended movement (Cohn, 1990). However, research has not examined whether routines transfer across practice and competition settings. The results of the current study suggest that pre-putt routines are consistent in both time and behaviors across practice and competition for elite golfers.

In the current study, participants were directly observed during actual performance (e.g., naturalistic setting) (Bell et al., 2010a). This type of setting allows for more generalizable results (Lonsdale & Tam, 2008), however, an important limitation is the various extraneous factors, which may have been at play such as varying difficulty of the different golf courses or holes. Despite the transfer of pre-putt routines of elite golfers across practice and competition, the low number of athletes (n=11) resulted in low statistical power, which may explain the lack of significant logistic regression results. Additionally, due to the non-experimental design and the real-world environment of data collection, it is not possible to make causal inferences.

The amount of variability of successful putting in competition is partly why the average of 6-foot putts for PGA Tour Professionals is around 50% (Diaz, 1989; Graham, 2010). Golfers in the current study putted on different greens throughout the course of data collection. For example, slope, speed, and knowledge of the greens varied between practice and competition courses. Also, various weather conditions may have caused changes in playing performance. While fall temperatures (mid 50's) were primarily encountered, extremes existed as high as 90 and as low as 32. In addition to extreme temperatures, golfers also encountered high gusts of winds (<20 mph) and rain on two days of data collection.

Future investigation on the topic of pre-putt routines, while researched thoroughly, still has avenues to explore. Pertaining to the limitations listed above, future researchers should utilize a larger population to allow for greater generalizability of results and statistical power. Other suggestions are to include a qualitative follow up interview suggested by Cotterill et al. (2010) in order to better understand different cognitive and behavioral aspects of pre-performance routines.

Summary

This study is the first to date that examines on the

transfer of golfers' pre-putt routines across settings. The current research revealed that there is consistency in both behavior and time for putting routines across practice and competition. The methodology is similar to past research in the field, which provides insight into the significance of pre-performance routines. While different sports vary on their pre-performance requirements, it is nonetheless important to incorporate a consistent routine that can be carried over from practice to competition (Bell et al., 2010b).

References

Bell, R. J., Cox, K, & Finch, W. (2010a). Pre-putt routines and putt outcomes of collegiate golfers. *Journal of Sport Behavior,* 33, 239-257.

Bell, R. J., Finch, W., & Whitaker, Z. (2010b). Duration of pre-performance routines of divers and performance outcomes. *The Sport Journal*, 13, 4.

Boutcher, S., & Zinnser, N. (1990). Cardiac deceleration of elite and beginning golfers during putting. *Journal of Sport & Exercise Psychology*, 18, 30-39.

Cotterill, S., Sanders, R., & Collins, D. (2010). Developing effective pre-performance routines in golf: Why don't we ask the golfer? *Journal of Applied Sports Psychology*, 22, 51-64.

Czech, D., Ploszay, A., & Burke, K. (2004). An examination of the maintenance of preshot routines in basketball free throw shooting. *Journal of Sport Behavior*, 27(4), 323-329.

Diaz, J. (1989). Perils of putting, *Sports Illustrated*, 70, 76-79.

Gayton, W., Cielinski, K., Francis-Keniston, W., & Hearns, J. (1989). Effects of a pre shot routine on free-throw shooting. *Perceptual & Motor Skills*, 68, 317-318.

Graham, J. (2010, April). 2009 PGA tour putting make percentages. John Graham Golf. Retrieved from http://johngrahamgolf.com/blog/2009-pga-tour-putting-percentages/

Holt, J. E., Ward, P., & Wallhead, T. L. (2006). The transfer of learning from play practices to game play in young adult soccer players. *Physical Education and Sport Pedagogy*, 11(2), 101-118.

Jackson, R. (2003). Pre-performance routine consistency: temporal analysis of goal kicking in the Rugby Union World Cup. *Journal of Sports Sciences*, 21(10), 803-814.

Lobmeyer, D., & Wasserman, E. (1986). Preliminaries to free throw shooting: Superstitious behavior? *Journal of Sport Behavior,* 9, 70-78.

Lonsdale, C., & Tam, J. (2008). On the temporal and behavioral consistency of pre-performance routinesL An intra-individual ananlysis of elite basketball players' free throw shooting accuracy. *Journal of Sports Sciences*, 26, 259-266.

Martinez, *M.* D. (1990). Psycho-physical aspects of the interchange between piano and harpsichord: A study of experiences and opinions of current performers and educators. (Doctoral dissertation). Retrieved from Texas Tech University. (etd-02262009-31295005854582)

McCann, P., Lavalee, D., & Lavalee, R. (2001). The effect of pre-shot routines on golf wedge shot performance. *Journal of Sports Sciences*, 26, 259-266.

Pelz, D. (2000). Dave Pelz's putting bible. New York: Doubleday.

Schmidt, R., & Wrisberg, C. (2008). *Motor learning and performance* (4th ed.). Champaign, IL: Human Kinetics.

Singer, R. (2002). Pre-performance states, routines, and automaticity: What does it take to realize expertise in self-paced events? *Journal of Sport & Exercise Psychology*, 24, 359-375.

Travlos, A. K. (2010). Specificity and variability of practice, and contextual interference in acquisition and transfer of an underhand volleyball serve. *Perceptual and Motor Skills*, 110(1), 298-312.

Weinberg, R., & Gould, D. (2007). *Foundations of sport and exercise psychology* (4th edition). Champain, IL: Human Kinetics.

Williams, A. *M.*, & Hodges, N. J.(2005). Practice, instruction and skill acquisition in soccer: Challenging tradition. *Journal of Sport Sciences*, 23(6), 637-650.

Wrisberg, C., & Pein, R. (1992). The pre-shot interval and free throw shooting accuracy: An exploratory investigation. *The Sports Psychologist*, 6, 14-23.

Wrisberg, C., Cassidy, C., Morgan, T., & Cherry, L. (2009). Naturalistic observations in sport and physical activity settings. *Journal of Behavior Analysis in Health, Sports, Fitness, and Medicine,* 1, 117-129.

Creatine Monohydrate: Safe and Effective?

By Erin Gilreath, Lawrence W. Judge, David Bellar, and Jeffrey Petersen
Contact Information:
Dr. Lawrence Judge
Ball State University
School of P.E., Sport, and Exercise Science, HP 213
Muncie, IN 47304, USA
(765) 285-4211
LWJudge@bsu.edu

Abstract

Creatine monohydrate is the most effective ergogenic nutritional supplement currently available to athletes in terms of increasing high-intensity exercise capacity and lean body mass during training. Creatine is a dietary supplement which has become extremely popular in the athletic world over the past fifteen to twenty years. The basis of this rise in popularity stems from the claims that the supplement can build greater body mass and strength, create power gains, and improve recovery times for those athletes who participate in short, explosive activities such as power lifting, sprinting, and throwing events in track and field, such as the shot put. Ergogenic aids like creatine are a complex and, often times, confusing area of study with a vast amount of information and misinformation. Research has documented a deficiency in the nutritional knowledge of strength/power athletes. There is a significant need for a credible and reliable resource that provides research-based information regarding the proper and safe use of creatine. This comprehensive review of literature is designed for athletes and coaches considering the use of creatine to improve performance. Understanding the basics of how to properly use creatine and the risks involved can help individuals make informed decisions about aiding athletic performance.

Introduction

Creatine (Cr) is a dietary supplement which has become increasingly popular in the United States over the past fifteen to twenty years (Figure 1). Despite its popularity, the use of creatine as a sport supplement has been surrounded by both controversy and fallacy since it gained mainstream attention in the early 1990's. Anecdotal and media reports have often claimed that creatine usage is a dangerous and unnecessary practice. The basis of the rise in popularity stems from the claims that the supplement can build body mass, strength, and power, and improve recovery times for those athletes who participate in short, explosive activities such as power lifting, weight lifting, sprinting, and track and field. The primary reason for the popularity of Cr in strength power sports is its potential role in the production of energy. During high-intensity, short-duration bouts of exercise lasting approximately 1-14 seconds, the phosphagen system is the primary energy pathway allowing the body to function. Phosphocreatine (PCr) plays an essential role in the formation of ATP in the phosphagen system (Powers & Howley, 2004). As stored ATP utilized during excitation-contration coupling to produce muscle contractions, phosphocreatine (PCr) initiates the process of producing ATP in an attempt to maintain ATP levels within the cell. Since the phosphagen system relies on PCr for the production of ATP, as PCr levels decline performance decreases because of reliance on a slower pathway for ATP regenesis (Powers & Howley, 2004). During strenuous exercise, the phosphocreatine energy shuttle acts in contracting muscles to regenerate ATP through the return of high-energy phosphate bonds from the PCr reserve to produce ATP (Culpepper, 1998). To keep the energy pathway (CK reaction) running in a cyclic manner, Cr is resynthesized into PCr by other energy pathways, namely oxidative metabolism in the mitochondria (Haff, Kirksey, & Stone, 1999). When the oxidative production of ATP exceeds energy needs, the high-energy phosphate bond of ATP is transferred to Cr to produce PCr in the intermembrane space within the mitochondria. The availability of PCr in the muscle may significantly influence the amount of energy generated during brief periods of high-intensity exercise. Furthermore, it has been hypothesized that increasing muscle creatine content, via creatine supplementation, may increase the availability of PCr allowing for an accelerated rate of resynthesis of ATP during and following high-intensity, short-duration exercise. Theoretically, creatine supplementation during training may lead to greater training adaptations due to an enhanced quality and volume of work performed. In terms of potential medical applications, creatine is intimately involved in a number of metabolic pathways.

Figure 1- Creatine monohydrate can be purchased in powder form in most health food stores.

The many positive claims have also been accompanied by some negative reports, which not only refute the possibility of the supplement's advantages, but claim many harmful side effects as well. Specifically, creatine supplementation has been shown to improve performance during high intensity exercise, especially in sports that include short bouts of high intensity activity (football, baseball, weightlifting, sprints, etc) (Haff & Potteiger, 1997). Collegiate throwers are prime candidates for creatine use as their sport is explosive, powerful, and short in duration. By exploring the vast amount of research and data on creatine, this report will enable both coaches and athletes to make more deliberate and informed decisions on the use of creatine monohydrate as a supplement. This article will discuss the information necessary for athletic trainers, coaches, coach educators, and nutritionists to provide to strength and power athletes who are considering using creatine to enhance their performance. In addition, the article will explain to the reader exactly what creatine is and how it affects the body once ingested, clarify the current issues concerning creatine ingestion, and show some of the negative implications of unhealthy use of creatine.

History

Creatine monohydrate was scientifically discovered in 1832 by French scientist Chevreul (Grande & Graves, 2005), but it wasn't until 1842 that it was known that creatine was a normal component of skeletal muscle in mammals. Low levels of creatine can be found to naturally occur in beef, pork, and some types of fish (salmon and herring). Without supplementation, the human body will naturally produce 1-2g/day. Cr was first used commercially to promote growth and increase the energy of chickens (Walker, 1979) and, until the 1960s, Cr had to be extracted from raw meat (Grande & Graves, 2005). The synthetic production of Cr made the substance widely available to the general population. Creatine did not become a performance supplement until the early 1970's when it was utilized by coaches and athletes of the former Soviet Union and Eastern block nations to increase athletic muscle production and output (Bemben & Lamont, 2005). During the 1990's, however, the rise of interest in creatine supplementation and the studies of its effects on performance and the human body increased substantially (Bemben & Lamont, 2005). It was then that scientists, athletes, and coaches in the United States and England began to experiment and explore the benefits and possible side effects of creatine (Bemben & Lamont, 2005). In a matter of a few decades, Cr became the most popular athletic supplement (Grande & Graves, 2005) with sales of approximately 100 million dollars in 1998 (Haff, Kirksey, & Stone, 1999) and exceeded 400 million dollars in 2004 (Grande & Graves, 2005). It appears that strength/power athletes are utilizing legal ergogenic aids like creatine to help improve performance but some athletes are being criticized for using legal ergogenic aids. The former Soviet Union and other Eastern block nations were known for their testing laboratories and for experimenting with pharmaceuticals on athletes in order to improve perfOrmances and gain competitive advantages. This may have set the stage for most of the negativity and stigma that surrounds sports supplementation today. The negative stigma surrounding sport supplementation may be based on more than just speculation. A recent investigation reported that using nutritional supplements have been found to increase the likelihood of subsequent doping (Laure & Binsinger, 2007).

Typical Users

Even though strength and power athletes are commonly creatine (Cr) users, a wide variety of athletes of all levels of sports utilize Cr as an ergogenic aid. In effect, creatine has become the most popular choice of athletic supplementation among all athletes. As of 2005, the annual sales of all creatine supplements exceeded $400 million dollars (Grande & Graves, 2005). Obviously, this supplement has reached more than just power sports competitors as athletes of all kinds are attempting to reap the benefits of creative based on popular opinion and recommendations of peers. Though creatine is used in many sports, those that require the greatest amount of explosive power have allowed the supplement to reign dominant in the market. Weightlifting, football, and track and field athletes have become the greatest proponent for the supplement. Participation in football (men) and track & field (men & women) make up the largest populations of athletes from 15 to 21 years of age in the United States. Weightlifting programs are also employed in most every athletic program at this level giving these three sports the greatest prevalence of creatine supplementation.

Function

As athletes utilize their energy systems in high intensity exercise there is a decline in their levels of adenosine triphosphate (ATP) which exhausts muscle energy stores. Creatine (phosphocreatine), when coupled with the bodies own adenosine diphosphate (ADP), allows for the production of ATP that can facilitate the recovery energy levels for a short duration (Rawson & Persky, 2007). As a

supplement in the human body, creatine allows muscles to produce more force for short durations and further assist in muscle recovery (Grande & Graves, 2005). Stanton and Abt (2000) found in their study of elite Australian power lifters that the use of creatine monohydrate lead to an increase in strength and body mass by a predominance of the athletes surveyed. Flannagan (2007) later supported this evidence in finding that creatine supplementation can increase strength by approximately 8% over the average increase accrued by placebo supplementation and training. The function and effect that creatine may have on the body are not yet conclusive. There is a strong base of evidence, however, that supports creatine use in the human body based upon metabolic adaptation, molecular modifications, and the multitude of users who claim benefits from the supplement as a training aid (Rawson & Persky, 2007).

Figure 2- The discus throw is a strength/power event in track and field that can benefit from creatine supplementation.

Loading and Maintenance

Various supplementation protocols have been suggested as efficacious in increasing muscle stores of creatine. The amount of increase in muscle storage depends on the levels of creatine in the muscle prior to supplementation. Creatine supplementation has been shown to be most effective when administered in a loading phase followed by a maintenance phase where dosages and frequency differ. A sample loading phase may last from five to seven days and include creatine dosages of five grams administered four times each day (Bemben & Lamont, 2005). This cycle is followed up by the maintenance phase which includes a lower dosage from three to five grams of creatine per day generally continued for 4 to 16 weeks (Bemben & Lamont, 2005). Dosages and frequency of use may vary among athletes as will the results found from supplementation. Finding the appropriate loading and maintenance periods and dosage levels is imperative to achieving optimal results. The suggested loading and maintenance phases have been found to be effective in most cases but athletes need to remember that more does not always mean better. Consulting a sports nutritionist, athletic trainer, or physician familiar with creatine use and athletic performance may be an appropriate recommendation.

Advantages

The proposed benefits of creatine supplementation on sports performance include strength and power gains, leaner and increased body mass, and shorter recovery periods between explosive activities (Rawson & Persky, 2007). Over 200 studies have been conducted examining the effects of creatine supplementation on athletic performance since 1993 (Rawson & Volek, 2003) and in 2000 The American College of Sports Medicine (ACSM) released a position statement claiming creatine supplementation can improve high intensity, short duration performance especially during repeated exercise bouts (ACMS, 2000; Rawson & Volek; Terjung et al., 2000). Numerous studies have found creatine supplementation to increase muscular strength (Greenhaff, Casey, Short, Harris, Soderlund, & Hultman, 1993; Balsom, Soderlund, Sjodin, & Ekblom, 1995; Earnest, Snell, Rodriguez, Almada, & Mitchell, 1995; Rawson, Clarkson, Price, & Miles, 2002; Vandenberghe, Goris, Van Hecke, Van Leemputte, Vangerven, & Hespel, 1997; Vandenberghe, Van Hecke, Van Leemputte, Vanstapel, & Hespel, 1999), short term muscle recovery (Almada et al., 1997; Bemben & Lamont, 2005; Bosco et al., 1997; Kreider et al., 1998), and fat-free mass (Becque, Lochmann, & Melrose, 1997; Becque, Lochmann, & Melrose, 2000; Earnest, Snell, Rodriguez, Almada, & Mitchell, 1995; Haff, Kirsey, & Stone, 1999; Kreider et al., 1998; Kreider,Grindstaff, Wood, Bullen, Klesges, & Lotz, 1996; Maganaris & Maughan, 1998; Rawson, Clarkson, Price, & Miles, 2002; Vandenberge et al., 1997).

However, not all Creatine supplementation studies have resulted in significant performance improvements. It may be necessary to increase total muscle creatine by close to 20 mmol kg-1 dry weight (dw) from Creatine supplementation to obtain significant performance improvements (Greenhaff, Bodin, Soderlund, & Hultman, 1994). Research has identified three inter-individual responses to creatine supplementation: responders, individuals who experience a > 20 mmol kg-1 dw increase in total intramuscular creatine monohydrate plus phosphorylated creatine (Greenhaff, Bodin, Soderlund, & Hultman; Syrotuik & Bell, 2004); quasi responders, individuals who experience between a 10-20 mmol kg-1 dw increase; and non-responders, individuals who experience < 10 mmol kg-1 dw increase (Syrotuik & Bell, 2004). It has been established that performance increases are correlated to the amount of creatine that is absorbed during creatine supplementation (Syrotuik & Bell, 2004) and this correlation is prominently displayed in vegetarians who have lower endogenous creatine levels than non-vegetarians and have been found to tend to experience greater benefits from creatine supplementation (Rae, Digney, McEwan, & Bates, 2003; Shrier, 2004).

Because sprinting is both a strength and power exercise, it is natural for the supplementation of creatine to be utilized within the sport of track and field. Research studies have found that creatine supplementation has led to an increase in body mass and reduction in body fat creating a leaner athlete (Glaister et al., 2006). Similar results were found by Pearson, Hamby, Russel, and Harris in a study

conducted at the Human Performance Laboratory at Ball State University in 1999. Findings concluded that creatine monohydrate supplementation had a significant positive effect on an athlete's gain in strength, power, and body mass without an adverse effect on body fat percentages (Pearson, Hamby, Russel, & Harris, 1999). In short, athletes can gain an advantage in their power-to-weight ratios from creatine supplementation.

The Glaister study (2006) did find that with short term use of creatine, sprint athletes experienced gains in body mass without an increase in body fat; however, their sprint times or recovery periods did not show any significant change in either direction. This study was conducted in a short five to seven day time period which may not be long enough to reveal any long term training benefits. Results of the Pearson et al., 1999, showed that ten weeks of supplementation coupled with a resistance training program had a significant increase on strength and power and an increase in body mass without an increase in body fat (Pearson et al., 1999). In a similar study lasting twelve weeks, creatine supplementation coupled with a strength training program lead to an 8% increase in strength and a 12% increase in muscular endurance over a strength training program alone (Rawson & Persky, 2007). Gains of this type have been reported as typical when creatine is used for longer periods of time which include a loading and maintenance phase of the supplement.

Potential Negative Side-Effects

Allegations of the negative effects of creatine supplementation have come from representatives from a multitude of sources such as scientists, researchers, athletes, and coaches. Typical complaints have included minor reports of muscle cramps, water retention, decreased urination, stomachaches, diarrhea, and vomiting while some major risks reported include liver and kidney dysfunction (Poortmans & Francaux, 2000). As of 1999, the FDA officially logged 32 complaints regarding Cr supplementation including seizure, cardiac arrhythmia, cardiomyopathy, deep venous thrombosis, rhabdomyolysis, and death. However, no conclusions have been made linking the complaints in these reports to Cr supplementation (Juhn, O'Kane, & Vinci, 1999). Furthermore, most research conducted on Cr supplementation has no reported adverse side effects with the exception of possible weight gain. (Juan, 1999). In 1999, Haff, Kirksey, and Stone reported that of 80 research articles in peer-reviewed journals and approximately 70 papers presented at professional conferences only one demonstrated the occurrence of side effects from Cr supplementation. Interestingly enough at the turn of the century, not one of approximately 80 research articles and 70 papers presented at professional conferences had positively identified the occurrence of the side effects of creatine (Grande & Graves, 2005).

Muscle cramping has been the most common reported side effect among users, yet there is no current research that links creatine use to cramping. An electrolyte imbalance or an increased level of exercise intensity allowed by creatine supplementation may be the culprit in cramping yet research does not indicate that these effects are related to creatine use (Poortmans & Francaux, 2000). In either case, it is recommended that athletes stay well hydrated to avoid any issue of muscle cramping. The negative effects reported on the gastrointestinal system are not currently supported by any research evidence linking it to creatine use; however, it is suggested that creatine be allowed to thoroughly dissolve before ingestion to avoid any gastrointestinal discomfort (Poortmans & Francaux, 2000).

As for the major implications of liver and kidney dysfunction, these assertions are simply presumptions at this point and no data or research linking creatine supplementation to dysfunction with either organ in healthy individuals exist (Poortmans & Francaux, 2000). Before creatine supplementation begins, consulting a physician and obtaining a physical exam is recommended.

A valid concern surrounding Cr supplementation is that endogenous Cr production is suppressed during the course of supplementation. However, in two studies conducted by Walker, endogenous Cr production resumed following cessation of Cr supplementation (Walker, 1960; Walker, 1979; See also Haff, Kirksey, & Stone, 1999). More research needs to be conducted involving the effects of Cr supplementation on the biosynthesis of endogenous Cr production particularly for longer durations with an emphasis placed on new steady-state relations that may occur during periods of prolonged supplementation (Culpepper, 1998). Though most accusations and myths have been dispelled or unproven by research, it is important to note that health concerns are very real with all supplementations and it is advised to consult a physician before beginning any regimen. The current stance on Creatine supplementation is that the US Food and Drug Administration (FDA), the Association of Professional Team Physicians and the American College of Sports Medicine have concluded that while short term studies look positive for oral Creatine supplementation, significantly more long term research needs to be done before definite conclusions can be drawn about its health implications (Poortmans & Francaux, 2000). Cr appears to be safe when cycled with periods of consumption and non-consumption. The most common short term side effects of Cr supplementation reported are diarrhea, muscle cramps, dehydration, and unwanted weight gain.

Concerns of Consuming a Dietary Supplement

In accordance with the Dietary Supplement Health and Education Act (DSHEA) of 1994, the Food and Drug Administration (FDA) is no longer responsible for regulating the effectiveness or safety of dietary supplements (Congeni & Miller, 2002). A dietary supplement is defined as a product taken by mouth that contains a "dietary ingredient" intended to supplement the diet. Dietary ingredients can include vitamins, minerals,\ herbs, other botanicals, amino acids, and substrates such as enzymes, organ tissues, glandulars, and metabolites. Under the DSHEA bill, the law does not require manufacturers and/or distributors of supplements to investigate or forward reports they receive of injuries or illnesses that may be related to the use of their products to the FDA.

Moreover the FDA cannot remove a supplement from the market until they provide evidence suggesting the supplement is unsafe (U.S. Food and Drug Administration, 2001).

Under current regulations, the FDA does not ensure supplements containing the ingredients manufacturers place on the label and as of 2001, the FDA had not established a minimum standard of practice for supplement manufacturers (U.S. Food and Drug Administration, 2001). Manufacturers must only provide evidence to the FDA suggesting a supplement is reasonably safe before introducing the product to the market.

Additionally, no evidence must be presented to the FDA suggesting the safety of a supplement if the dietary ingredient(s) is found in foods or the ingredient(s) was marketed before October 15, 1994 (U.S. Food and Drug Administration, 2001). Cr falls under each of these categories. It is also important to note the FDA does not regulate serving size or amount of a nutrient in a supplement (U.S. Food and Drug

Administration, 2001). As a result, most companies suggest a loading phase of consuming 20-25 grams of Cr a day for a period of 4 to 5 days followed by a maintenance dosage of five grams a day (Juhn, 1999). A loading phase of 10 grams a day for four days has been shown to sufficiently load the body with Cr and a maintenance phase of 2 g or more, specifically 0.03 g/kg of body weight per day, is enough to maintain maximal muscle Cr concentration (Juhn, O'Kane, & Vinci, 1999). Research has also found the loading phase of Cr supplementation to be unnecessary as supplementation with 0.3 g*kg-1*d-1 for a five day period has been found to elevate muscle total Cr and PCr by 10-25% (Syrotuik & Bell, 2004). Creatine products are readily available as a dietary supplement and are regulated by the U.S. Food and Drug Administration (FDA). Specifically, in 1994, former U.S. president, Bill Clinton, signed the Dietary Supplement Health and Education Act into law (DSHEA). DSHEA allows manufacturers/companies/brands to make structure-function claims; however, the law strictly prohibits disease claims for dietary supplements.

The NCAA Policy on Creatine Usage

Several athletic governing bodies and special interest groups have questioned whether it is ethical for athletes to take creatine supplements as a method of enhancing performance. The National Collegiate Athletic Association (NCAA) has made strides within its legislation to protect the health of intercollegiate athletes: drug tests condemn the misuse of harmful legal and illegal substance abuse, and educational program implementation gives both athletes and coaches the knowledge to prevent health-related problems (NCAA, 2009a). In fact, it was safety concerns about the early game of football, and its notorious "flying wedge" formation that led to the establishment of the NCAA during the first decade of the 20th century (NCAA, 2009b). Although much of the attention from the NCAA has been directed towards sports that require lower body masses such as gymnastics or wrestling, protecting at-risk strength power athletes from a lifetime of potential health complications has become a greater NCAA priority (Figure 3).

Figure 3- Protecting at-risk strength power athletes from a lifetime of potential health complications has become a greater NCAA priority.

Creatine supplementation is not currently banned by any athletic organization although the NCAA does not allow institutions to provide Cr or other "muscle building" supplements to their athletes (e.g., protein, amino acids, HMB, etc). In this case, athletes must purchase creatine containing supplements on their own. Initiated as a proposal (No. 1999-72) by the PAC-10, the NCAA ruling on supplements was adopted in 2000 as NCAA DI Bylaw 16.5.2g. The 2001 ruling that restricted member institutions from providing athletes with supplements such as creatine and protein (NCAA, 2009a) is a good example of this policy shift. Although the NCAA change in policy does not appear to be based on sound evidence (Petroczi, Naughton, Mazanov, Holloway, & Bingham, 2007; Schilling et al., 2001), it does point towards concern for the well-being of athletes. The legislation reflects a philosophy that proper nutrition based on scientific principles is one of the tenets to optimal performance. It is not permissible for an institution or an institutional staff member to sell or arrange the sale of muscle-building supplements to student-athletes. The NCAA policy on nutrition supplements has two initial goals: (ASCM, 2009) end institutions providing "muscle-building" supplements (e.g., creatine) and (Blinde & Stratta, 1992) decrease exposure to dietary supplement products that are not well regulated. An additional concern was maintaining the competitive balance between institutions of different financial means. Schools with deeper pockets were able to offer supplements that helped athletes build muscle, gain weight, and increase their energy level. The International Olympic Committee considered these arguments and ruled that there was no need to ban creatine supplements since creatine is readily found in meat and fish and there is no valid test to determine whether athletes are taking it. Creatine levels in athletes are based on food ingestion or supplementation.

Practical Applications

The negative opinions voiced about Creatine are often founded on rumors and outdated information. Based on the results of recent research conducted with Cr, it appears opponents to the use of this substance may be familiar with only the anecdotal myths surrounding the supplement, and not the actual facts. Several hypotheses have been formulated to explain how Cr improves resistance training performance that lend credence to its use. Possible mechanisms include an increase in lean body mass (Volek et al., 1999), enhanced anticatabolic protection (Parise, Mihic, MacLennan, Yarasheski, & Tarnopolsky, 2001), an increase in myosin heavy chain mRNA and protein expression (Willoughby & Rosene, 2001), an alteration in the expression of myogenic transcription factors (Hespel et al., 2001), increased protein synthesis (Rawson & Volek, 2003), an increase in satellite cell mitotic activity (Dangott, Schultz, & Mozdziak, 2000), and increased intensity in individual workouts due to a greater supply of ATP (Casey, Constantin-Teodosiu, Howell, Hultman, & Greenhaff, 1996; Rawson & Volek). Research and studies have shown that creatine supplementation does produce desired effects with either no or low level negative effects. This information should be encouraging to both athletes and coaches considering future use and applications of creatine supplementation. As more time passes, the mysteries of creatine supplementation are certain to be uncovered. All current indications point towards a positive outcome in future studies and research which may simply substantiate what is already known. As coaches and athletes proceed with supplementation, they should move forward with as much information and guidance as possible by reading available information from reputable resources, consult with a sport nutritionist, athletic trainer or physician, and stay within the prescribed guidelines of creatine use and your sports governing body to best manage health and eligibility.

Conclusion

The explosive growth of the supplement industry is a sign that individuals are open to new ideas and methods of improving athletic performance. The use of creatine is no exception with the use of the supplement growing substantially over the last 10-20 years. However, coaches, nutritionists, and athletic trainers must stay informed about athletes' use of supplements like creatine. Based on the results of available research studies, coaches may want to evaluate the use of creatine as an ergogenic aid in certain situations. It is important to understand how creatine may or may not aid in accomplishing athletic goals. Despite lingering myths concerning creatine supplementation in conjunction with exercise, Cr remains one of the most extensively studied, as well as effective, nutritional aids available to athletes. Hundreds of studies have shown the effectiveness of Cr supplementation in improving anaerobic capacity, strength, and lean body mass in conjunction with training. In addition, Cr has repeatedly been reported to be safe, as well as beneficial in preventing injury. Finally, the future of creatine research looks bright regarding the areas of transport mechanisms, improved muscle retention, as well as treatment of numerous clinical maladies via supplementation.

Further studies are needed to better characterize creatine and the ultimate effectiveness and long term side effects of the supplement (Bemben & Lamont, 2005). What can be concluded from current studies is that an abundant amount of information is available to coaches and athletes and it may be enough for them to make educated decisions on whether to utilize the supplement to aid athletic performance or simply leave it on the shelf. The claimed benefits certainly appear to be substantiated by research and may be enough to encourage a prospective user to consider incorporating creatine into their normal diet to improve performance. Many of the derogatory reports associated with creatine supplementation do not appear to have any solid foundation other than a possible increase in body mass which may actually be perceived as a benefit depending on the user's specific goals. That said, twenty years of evidence and research are still the beginning of the knowledge base needed regarding creatine. Long-term use and long-term effects still must be studied for a greater length of time to determine the full impact creatine has on the human body. Proceeding with supplementation on the side of caution would be a reasonable recommendation for coaches and athletes after conferring with their doctor and assuring it is not a banned substance in their sport.

References

ACSM. (2000). Physiological and health effects of oral creatine supplementation. *Medicine & Science in Sports & Exercise*, 32(3), 706-717.

American College of Sports Medicine. (2009). *ACSM's Resource Manual for Guidelines for Exercise Testing and Prescription.*

Almada, A., Kreider, R., Ferreira, *M.*, Wilson, *M.*, Grindstaff, P., Plisk, S., … Cantler, E. (1997). Effects of calcium-HMB supplementation with or without creatine during training on strength and sprint capacity. *Federation of American Societies for Experimental Biology,* 11, 374.

Balsom, P. D., Soderlund, K., Sjodin, B., & Ekblom, B. (1995). Skeletal muscle metabolism during short duration high-intensity exercise: Influence of creatine supplementation. *Acta Physiologica Scandinavica*, 154, 303-310.

Becque, B., Lochmann, J., & Melrose, D. (1997). Effect of creatine supplementation during strength training on 1 RM and body composition. *Medicine & Science in Sports & Exercise,* 29(5).

Becque, *M.* D., Lochmann, J. D., & Melrose, D. R. (2000). Effects of oral creatine supplementation on muscular strength and body composition. *Medicine & Science in Sports & Exercise*, 32, 654-658.

Bemben, *M.*, & Lamont, H. (2005). Creatine supplementation and exercise performance: Recent findings. *Sports Medicine*, 35(2), 107-125.

Blinde, E. *M.*, & T. *M.* Stratta. (1992). The "sport career death" of college athletes: Involuntary and unanticipated sport exits. *Journal of Sport Behavior,* 15, 3-20.

Bosco, C., Tihanyi J., Pucspk, J., Kovacs, J., Gabossy, A., Colli, R., … Viru, A. (1997). Effects of oral creatine supplementation on jumping and running performance. *International Journal of Sports Medicine*, 18, 369-372.

Casey, A., Constantin-Teodosiu, D., Howell, S., Hultman, E, & Greenhaff, P. L. (1996). Creatine ingestion favorably affects performance and muscle metabolism during maximal exercise in humans. *American Journal of Physiology*, 271, 31-37.

Congeni, J., & Miller, S. (2002). Supplements and drugs used to enhance athletic performance. *Pediatric Clinics of North America*, 49, 435-461.

Culpepper, *M.* R. (1998). Creatine supplementation: Safe as steak? *Southern Medical Journal,* 91(9), 890-892.

Dangott, B., Schultz, E., & Mozdziak, P. E. (2000). Dietary creatine monohydrate supplementation increases satellite cell mitotic activity during compensatory hypertrophy. International Journal of Sports Medicine, 21, 13-16.

Earnest, C. P., Snell, P. G., Rodriguez, J., Almada, A. L., & Mitchell, T. L. (1995). The effects of creatine monohydrate ingestion on anaerobic power indices, muscular strength and body composition. Acta Physiologica Scandinavica, 153, 207-209.

Flanagan, E. (2007). Creatine supplementation: Implications for the competitive weightlifter. *National Strength and Conditioning Association*, 29(2), 60-66.

Glaister, *M*., Lockey, R., Abraham, C., Staerck, A., Goodwin, J., & McInnes, G. (2006). Creatine supplementation and multiple sprint running performance. *Journal of Strength & Conditioning Research*, 20(2), 273-277.

Grande, B., & Graves, B. (2005). Creatine supplementation: Forms, function, and effects. *National Strength and Conditioning Association*, 27(1), 62-68.

Greenhaff, P. L., Bodin, K., Soderlund, K., & Hultman, E. (1994). Effect of oral creatine supplementation on skeletal muscle phosphocreatine resynthesis. *American Journal of Physiology*, 266, 730-745.

Greenhaff, P. L., Casey, A., Short, A. H., Harris, R., Soderlund, K, & Hultman, E. (1993). Influence of oral creatine supplementation of muscle torque during repeated bouts of maximal voluntary exercise in man. *Clinical Science* (Colch), 84, 565-571.

Haff, G. H., Kirksey, B. K., & Stone, *M*. H. (1999). Creatine supplementation. *Strength and Conditioning Journal*, 21(4), 13-23.

Haff, G., & Potteiger, J. A. (1997). Creatine Supplementation for the Strength/Power Athlete. *Strength and Conditioning Journal*, 19(6), 72-74.

Hespel, P., Eijnde, B., Van Leemputte, *M*., Urso, B., Greenhaff, P. L., Labarque, V., … Richter, E. A. (2001). Oral creatine supplementation facilitates the rehabilitation of disuse atrophy and alters the expression of muscle myogenic factors in humans. *Journal of Physiology*, 536, 625-633.

Juhn, *M*. S. (1999). Oral creatine supplementation, separating fact from hype. *The Physician and Sports Medicine*, 27, 70-81.

Juhn, *M*. S., O'Kane, J. W., Vinci, D. *M*. (1999). Oral creatine supplementation in male collegiate athletes: A survey of dosing habits and side effects. *Journal of the American Dietetic Association*, 5(3), 593-595.

Kreider, R. B., Ferreira, *M*., Wilson, *M*., Grindstaff, P., Plisk, S., & Reinardy, J., … Almada, A. L. (1998). Effects of creatine supplementation on body composition, strength, and sprint performance. *Medicine & Exercise In Sports & Science*, 30, 73-82.

Kreider, R., Grindstaff, P., Wood, L., Bullen, D., Klesges, R., & Lotz, D. (1996). Effects of ingesting a lean mass promoting supplement during resistance training on isokinetic performance. *Medicine & Science in Sports & Exercise*, 28.

Maganaris, C. N., & Maughan, R. J. (1998). Creatine supplementation enhances maximum voluntary isometric force and endurance capacity in resistance trained men. *Acta Physiologica Scandinavica*, 163, 279-287.

NCAA. (2009a). History. Retrieved July 1, 2009 from http://www.ncaa.org/wps/portal/ncaahome?WCM_GLOBAL_CONTEXT=/ncaa/ncaa/about+the+ncaa/overview/history.html

NCAA. (2009b). 2008-2009 NCAA Division I manual. Retrieved July 1, 2009 from http://www.ncaapublications.com/Uploads/PDF/Division_1_Manual_2008-09e9e568a1-c269-4423-9ca5-16d6827c16bc.pdf

Parise, G., Mihic, S., MacLennan, D., Yarasheski, K. E., & Tarnopolsky, *M*. A. (2001). Effects of acute creatine monohydrate supplementation on leucine kinetics and mixed-muscle protein synthesis. *Journal of Applied Physiology*, 91, 1041-1047.

Pearson, D., Hamby, D., Russel, W., & Harris, T. (1999). Long-term effects of creatine monohydrate on strength and power. *Journal of Strength and Conditioning Research*, 13(3), 187-192.

Petroczi A., Naughton, D. P., Mazanov, J., Holloway, A., & Bingham, J. (2007). Performance enhancement with supplements: Incongruence between rationale and practice. *Journal for the International Society of Sports Nutrition*, 4, 19.

Poortmans, J., & Francaux, *M*. (2000). Adverse effects of creatine supplementation: Fact or fiction?. *Sports Medicine*, 30(3), 155-170.

Powers, S. K., & Howley, E. T. (2004). *Exercise physiology: Theory and application to fitness and performance* (5th ed.). New York: McGraw-Hill.

Rae, C., Digney, A. L., McEwan, S. R., & Bates, T. C. (2003). Oral creatine monohydrate supplementation improves brain performance: A double-blind, placebo-controlled, cross-over trial. Proceedings of The Royal Society London B: *Biological Science*, 22(270), 2147-2150.

Rawson, E. S., Clarkson, P. *M*., Price, T. B., & Miles, *M*. P. (2002). Differential response of muscle phosphocreatine to creatine supplementation in young and old subjects. *Acta Physiologica Scandinavica*, 174, 57-65.

Rawson, E., & Persky, A. (2007). Mechanisms of muscular adaptations to creatine supplementation. *International Sports Medicine Journal*, 8(2), 43-53.

Rawson, E. S., & Volek, J. S. (2003). Effects of creatine supplementation and resistance training on muscle strength and weightlifting performance. *Journal of Strength and Conditioning Research*, 17, 822-831.

Schilling, B. K., Stone, *M*. H., Utter, A., Kearney, J. T., Johnson, *M*., Coglianese, R., … Stone, *M*. E. (2001). Creatine supplementation and health: A retrospective study. *Medicine and Science in Sports and Exercise*, 33(2), 183-188.

Stanton, R., & Abt, G. (2000). Creatine monohydrate use among elite Australian power lifters. *Journal of Strength and Conditioning Research*, 14(3), 322-327.

Syrotuik, D. G., & Bell, J. B. (2004). Acute creatine monohydrate supplementation: A descriptive physiological profile of responders vs. nonresponders. *The Journal of Strength and Conditioning Research*, 18(3), 610-617.

Terjung, R. L., Clarkson, P. Eichner, E. R., Greenhaff, P. L., Hespel, P. J., Israel, R. G., …Williams, *M*. H. (2000). American College of Sports Medicine Roundtable. The physiological and health effects of oral creatine supplementation. *Medicine & Science in Sports & Exercise*, 32, 706-717.

U. S. Food and Drug Administration. (2001). Regulatory and safety evaluation specialty section – *Newsletter of the Society of Toxicology*. Retrieved May 17, 2006, from http://www.toxicology.org/ISOT/SS/regulatorysafety/NLJune_2001.doc

Vandenberghe, K., Goris, *M*., Van Hecke, P., Van Leemputte, *M*., Vangerven, L., & Hespel, P. (1997). Long-term creatine intake is beneficial to muscle performance during resistance training. *Journal of Applied Physiology*, 83, 2055-2063.

Vandenberge, K., Van Hecke, P., Van Leemputte, *M*., Vanstapel, F., Hespel, P. (1999). Phosphocreatine resynthesis is not affected by creatine loading. *Medicine & Science in Sports & Exercise*, 31, 236-242.

Volek, J. S., Duncan, S. A., Mazzetti, R. S., Staron, *M*., Putukian, A. L. Gomez, D. R., … Kraemer, W. J. (1999). Performance and muscle fiber adaptations to creatine supplementation and heavy resistance training. *Medicine & Science in Sports & Exercise*, 31, 1147-1156.

Walker, I. B. (1960). Metabolic control of creatine biosynthesis. II: Restoration of transamidinase activity following creatine repression. *Journal of Biological Chemistry*, 236, 493-498.

Walker, I. B. (1979). Creatine: Biosynthesis, regulation and function. *Advances In Enzymology and Related Areas of Molecular Medicine*, 50, 177-242.

Willoughby, D. S., & Rosene, J. (2001). Effects of oral creatine and resistance training on myosin heavy chain expression. *Medicine & Science in Sports & Exercise*, 33, 1674-1681.

After School Running and Walking Program for Elementary Students

By Renee E. Frimming and *M.* Jay Polsgrove
Contact Information:
Renee E. Frimming, Ed.D., MCHES, Assistant Professor, Physical Education Department, University of Southern Indiana, 8600 University Blvd, Evansville, IN 47712 rfrimming@usi.edu
M. Jay Polsgrove, Ph.D., Assistant Professor, Physical Education Department, University of Southern Indiana, 8600 University Blvd, Evansville, IN 47712, mjpolsgrov@usi.edu

Abstract

A local elementary school interested in starting a running and walking club for students to encourage physical activity and health education utilized the framework set by the Greater Evansville Runners and Walkers Club. The elementary students participating in the running and walking club consisted of (N=18) students. These students were in the 3rd grade (*n*=3), 4th grade (*n*=12) 5th grade (*n*= 5) and 50% girls (*n*=9) and 50% boys (*n*=9). The running and walking club met once a week for 45 minutes over a period of 12 weeks. Of the starting participants, 11 students completed 75% or more of the available sessions. The total semester equivalent mileage for the group was 937 miles. The average weekly equivalent was 43.4 miles. Nine students participated in at least one fun run. Fun runs were held in March (1 mile run or 7K) and April (5k). These consistent participation values indicate an after school running and walking club promoting social interaction with goal oriented objectives presented in a fun environment are positively received by elementary students.

Key Words: After school program, Running, Walking, Physical Activity

Introduction

American children are becoming less active and more obese (Haynie, 2010; Child Trends Data Bank, 2010). A potential cause could be linked to an ongoing reduction of funding for physical education and health education programs (Kun, 2010; Nellessen-Lara, 2011; Strauss, 2011). In response to this concern, communities and schools are seeking ways to increase physical activity and health among youth to help reduce obesity (Debate, R., McDermott, R., Baldwin, J., Bryant, C., Courtney, A., Hogeboom, D., Nickelson, J., Phillips, L., Alfonso, *M.*, 2009). It is commonly agreed that successes in after school health and fitness related programming have been linked to promoting health awareness, physical activity and cognitive engagement (Connor, Fryer, Fryer, & Drake, 2009; Yin, Hanes, Moore, Humble, Barbeau, & Gutin, 2005). However, with funding reductions and time constraints, such opportunities to engage students in ways that may influence quality of life are limited. As a result, teachers, parents, and fitness/health professionals look for new solutions to enhance student physical activity and health education.

Striving to serve the community, health and fitness professionals can provide positive learning experience for students. In such situations, competition or specific results does not have to be the primary focus, instead positive health and fitness experiences can occur during social interactions and effective programming. Considering this approach, optimizing health and fitness after school programming can be created to meet the needs of the children by promoting social interaction in a non-competitive environment which is goal oriented and fun (Bower, Bennett, Frimming, 2009; Frimming, Polsgrove, & Bennett, 2010; Debate, R., McDermott, R., Baldwin, J., et al. 2009).

Methodology

A local elementary school was interested in starting a running and walking club to encourage physical activity and health education for their students. To more easily create an effective club, a structure from the Greater Evansville Runners and Walkers Club was adopted. Additionally, Toyota Motor Manufacturing Indiana and friends of the Step Up Club sponsored the club. The Step Up Club is a running and walking club for kids grades K-8 with goals to improve personal fitness; self esteem and provide social interaction with peers and families through running and walking (Step Up Club, 2011). Building on the foundation provided by the Step Up Club, club organizers sought to enhance weekly sessions by partnering with a nearby university. Faculty members in the physical education department with expertise in fitness programming and health education and a parent coordinator worked together to organize the running and walking club. The parent coordinator had a child in the program with an interest in running and actively participated in the program. Conveniently located less than two miles from the university, the local elementary school was ideal for university students to get involved. By interacting with the elementary students it was

hoped the college students would gain experience in designing and implementing effective fitness programs and gain experience working with youth. The college students majoring in exercise science, kinesiology and physical education were recruited to participate in the running and walking program and were enrolled in the Program Designs for Healthy and Special Populations and Teaching Strategies for Health classes during the 2010 spring semester. The college students were asked to lead and design weekly club sessions. In addition to the college students, a parent coordinator tracked running and walking club miles, coordinated incentives for the students and helped organize two fun runs.

Participants

The elementary students participating in the running and walking club consisted of (N=18) students. These students were in the 3rd grade (*n*=3), 4th grade (*n*=12) 5th grade (*n*= 5) and 50% girls (*n*=9) and 50% boys (*n*=9). The running and walking club met once a week for 45 minutes over a period of 12 weeks. Typical sessions began with the parent coordinator setting ground rules, making announcements of upcoming events, and collecting mileage and mileage equivalents from the past week. Mileage equivalents were based on values provided by the Step-up club format. Weekly mileage equivalents were based on actual mileage and one cross training activity. For example, biking for 30 minutes was equivalent to 2 miles of running/walking and playing soccer for 30 minutes was equivalent to 2 miles running/walking. For each day of the week mileage and mileage equivalents were determined through activity, distance or time, difficulty with the activity, weather and training notes. Mileage equivalents for the week were totaled and added to previous weeks (Step Up Club, 2011).

The college student volunteers conducted leadership and design of the walking and running club sessions. College students in the Teaching Strategies in Health class led the warm up and assisted in the 30 minutes of exercising and led the cool down. Students in the Program Designs for Healthy and Special Populations class led the 30-minute activity session, which included activities in balance, power, cardio, and flexibility.

Results

Of the starting walking and running group participants, 11 students completed at least 75% or more of the available sessions. The mileage equivalent for the group was 937 miles. The average weekly equivalent was 43.4 miles. Nine students participated in at least one fun run. Fun runs were completed two separate times: in March (1 mile run or 7K) and April (5k). Additionally, the fun runs were selected on their potential benefit to the community. The fun run in March collected shoes for Soles4Souls while the run in April supported a local title 1 elementary school.

Incentives based on mileage recorded were given to the participants. Examples of incentives were reflective tags, medals and t-shirts. At the conclusion of the 12 weeks, students were invited to a pool party where they were all given certificates of participation and awards. Some of the award categories included most spirited, most improved, and dedicated.

Conclusion

The purpose of the running and walking club activities was to encourage health and fitness through positive associations with activity during social engagement. To best accomplish this goal we expanded the scope of the project to include the participation of college students, which allowed them to plan and implement in a practical and relevant setting. From the results, it can be observed club members positively received program offerings. Most significantly, there was a strong consistency in weekly participation and total mileage equivalents. Additionally, it can be observed that there were positive trends in participation where half of the club participants took part in at least one fun run. These observations indicated that an after school running and walking club which promotes social interaction, conducted in a non-competitive environment, goal oriented and fun can be positively received by elementary students. Future implications indicate that such approaches could be used to enhance participation in a variety of fitness and health based afterschool programs.

References

Bower, G., Bennett, S., Frimming, R. (2009). Connect the SMART way: Implementing a youth fitness and nutrition program. *Indiana AHPERD Journal*, 38 (2), 11-14.

Child Trends Data Bank. (2010, March 20). Vigorous physical activity by youth. Retrieved from Child Trends Data Bank: Health website: http://www.childtrendsdatabank.org/archivepgs/16.htm

Coleman, K., Geller, K., Rosenkranz, R., Dzewaltowski, D. (2008). Physical activity and healthy eating in the after-school environment. *Journal of School Health*, 78, (12), 633-640.

Connor, *M*., Fryer, A., Fryer, S., and Drake, J. (2009). Future fit: A cardiovascular health education and fitness project in an after-school setting. *Journal of School Health.* 56 (8), 329-333.

Debate, R., McDermott, R., Baldwin, J., Bryant, C., Courtney, A., Hogeboom, D., Nickelson, J., Phiilips, L., Alfonso, *M*. (2009). Factors associated with tweens' intentions to sustain participation in an innovative community-based physical activity intervention. *American Journal of Health Education*, 40 (3), 130-135.

Frimming, R., Polsgrove, *M*., and Bennett, S. (2010). Little help from my class. *Indiana AHPERD Journal*. 39, 3.

Haynie, D. (2010, March 30). Save the jobs of teachers, NACS hears parents tout other ideas to ease budget-cut pain. *Fort Wayne Journal Gazette*. Retrieved from http://www.journalgazette.net

Kun, P. (2010, May 27). School physical education budgets a cause for alarm in new trends survey. *National association for sport and physical education*. Retrieved from http://www.aahperd.org/naspe/advocacy/mediaCenter/pressReleases/Budget-Survey.cfm

Nellessen-Lara, L. (2011, May 13). Indiana students shorted on physical education. The StarPress.com, Retrieved from http://www.thestarpress.com/article/20110515/OPINION/105150330

Strauss, L. (2011, May 17). 43 education programs republicans want to eliminate. *The Washington Post,* Retrieved from http://www.washingtonpost.com/blogs/answer-sheet/post/43-education-programs-republicans-want-to-eliminate/2011/05/16/AFRdiG5G_blog.html

Step Up Club (2011) Retrieved from Step Up Club website: http://www.gerwc.com/stepupclub/.

Yin, Z., Hanes, J., Moore, J., Humble, P., Barbeau, P., and Gutin, B.(2005). An After-School Physical Activity Program for Obesity Prevention in Children. Medical college of Georgia FitKid Project. *Evaluations and the Health Professions*; 28: 67-89.

"PE: Play Everyday" - Promoting a Healthy Lifestyle for Youth in the Community

By Susan Hagood, Rebecca Zakrajsek, and Lora Walsh
Contact Information:
Susan Hagood, PhD
Assistant Professor
Kinesiology & Physical Education Department
Valdosta State University
1500 N. Patterson Street
PE Complex, KSPE Dept. 173
Valdosta, GA 31698 (fax)
850-491-8526; 229-245-3863
syhagood@valdosta.edu

Rebecca Zakrajsek, PhD, AASP-CC
Assistant Professor
Physical Education Department
Indiana State University
Arena C-24
812-237-3906 (office); 812-237-4338 (fax)
Rebecca.Zakrajsek@indstate.edu

Lora C. Walsh
Instructor
Physical Education Department
Indiana State University
Arena C-37
812-237-4058 (office); 812-237-4338 (fax)
Cate.Walsh@indstate.edu

Abstract

Childhood obesity in the United States and at home in Indiana is on the rise. The idea of community is an underling key element for improving childhood obesity. Within the past year programs like "Let's Move" and "Let's Move in Schools" have encouraged our communities to stand up and do their part to help children live healthier active lives. "PE: Play Everyday," a service learning project that incorporated professional growth and development with the reflective cycle, was developed to help college students better understand their teaching skills as well as their role in becoming active citizens for promoting healthy lifestyle to youth in their community. It also offered children the opportunity to enjoy physical activity. Children identified activities such as cardio kickball, dance, and parachute as enjoyable. Children also reported that they enjoyed exercising and their heart pumping as well as having fun and playing. Volunteers in this study were not only able to identify what types of activities kids enjoyed during the event, but they were also able to critically reflect on the success of the event related to design and implementation.

Key Words: childhood obesity, physical activity, service learning, healthy lifestyle, community.

Promoting a Healthy Lifestyle of Youth in the Community

The prevalence of obesity in children from ages 6 to 11 has more than tripled in the past 30 years in the United States, going from 6.5% in 1980 to 19.8% in 2008 (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). According to the Freedman, Dietz, Srinivasan, and Berenson (1999), approximately 50% of children and adolescents who are obese will become obese adults, increasing their risk for many of the major diseases: heart disease, high blood pressure, cancer of the colon, kidney, and gallbladder, and postmenopausal breast cancer. Whitaker, Wright, Pepe, Seidel, and Dietz (1007) also found that 80% of children who were overweight at age 10-15 years were obese adults at age 25.

Childhood obesity in Indiana has continued to rise over the past five years with 29.9% of Hoosier children age 10-17 being overweight or obese, a ranking of 21st in the nation according to the National Initiative

for Children's Healthcare Quality (NICHQ, 2011). These statistics not only create concern regarding childhood obesity in the nation, but also in our home state of Indiana. This obesity crisis has forced policy makers, administrators, educators, and parents to take notice.

In 2001, the U.S. Surgeon General issued a *Call to Action* to decrease obesity and stimulate the development of specific agendas and actions targeting childhood obesity problems (USDHHS, 2001). Being alarmed by the childhood obesity levels in Indiana, the Department of Education, in partnership with the Indiana State Department of Health, applied for and was awarded a 5-year grant from the Centers for Disease Control and Prevention to coordinate efforts and improve the health of children in Indiana schools (Indiana State Department of Health, 2011). The Indiana Coordinated School Health Program was initiated with the goal of improving children's health and removing barriers to learning. The Coordinated School Health Program includes eight pillars to success: a) comprehensive school health education, b) physical education, c) school health services, d) nutrition services, e) counseling and social services, f) health school environment, g) school-site health promotion for staff, and h) family community involvement.

The idea of community involvement is one underling key element for improving childhood obesity in the School Coordinated Health Program initiative. In a *Guideline to Promoting Physical Activity* the United States Department of Health and Human Services (2008) clearly endorses community events as a wonderful way to generate awareness for and interest in physical activity to help Americans improve their health. In fact, one of their slogans *"Together, We Can Help Americans Become More Physically Active"* (p. 1) directly infers community involvement. Promoting physical activity is about helping your community, worksite, school, and family get excited about incorporating physical activity into their daily lives (USHHS, 1999). In a report on the role of schools preventing childhood obesity, Wechsler, McKenna, Lee, and Dietz (2004) concluded that *"schools cannot solve the obesity epidemic on their own"* (p. 6). Schools need to find additional opportunities for students beyond their physical education class to enjoy being physically active. The challenge; however, is with increased demand on students' academic performance and diminishing school budgets, how can schools find alternative ways to get students physical activity. The purpose of this article is to share one universities approach to promoting a healthy lifestyle for youth in the community while also providing professional development opportunities for future educators.

"PE: Play Everyday"

"PE: Play Everyday", a community level project sponsored and supported through an Indiana Association for Health, Physical Education, Recreation, and Dance (IAHPERD) advocacy grant, was designed to help young children develop healthy lifestyles through physical activity, as well as provide a professional development opportunity for aspiring educators. A core group of health and physical education majors worked together to successfully plan, implement, and assess "PE: Play Everyday." Interdisciplinary collaboration was also encouraged as multiple departments and majors (e.g., physical education, health education, and elementary education) volunteered and worked together to successfully implement the project. Additional community objectives included building relationships, mentoring, and role modeling through collaboration with the university and local schools. The phases of this interdisciplinary collaboration are described in more detail in the following sections.

Phase 1: Design

"PE: Play Everyday," was designed to send a strong message about the need for physical activity and playing every day. In addition, this focus is in line with the national campaign "Let's Move," which was launched by First Lady Michelle Obama to help children born today reach adulthood at a healthy weight (Let's Move!, 2011). The target audience for "PE: Play Everyday" included 4th and 5th graders at a local elementary school. This population was purposefully selected to support a local Title I school. Title I schools are designated by the percentage of students who are eligible for free or reduced priced lunch programs (Okpala, Okpala, & Smith, 2001). This population is of particular interest given the rise in obesity prevalence among low-income children (CDC, 2009). After solidifying participation from the school board and the principal of the elementary schools, flyers and parent permission slips were sent home with the 4th and 5th graders to inform their parents of "PE: Play Everyday" and obtain permission for participation in "PE: Play Everyday" held at the university.

With "PE: Play Everyday" as the central focus, university volunteers (e.g., undergraduate students) identified and developed a variety of physical activity learning experiences for 4th and 5th grade children in the community. All physical activity stations addressed specific, state identified, physical education standards that were related to those required for lesson plans taught in the schools. Activity stations were selected that encouraged cardiovascular fitness, muscular strength, balance, and creative movement in addition to team building exercises that focused on manipulative skills. It was important for the university volunteers to think about balancing high intensity forms of physical activity (e.g., jumping rope) with lower intensity physical activity (e.g., sneak attack game). This would ensure that the children did not tire too rapidly. Nine stations were ultimately chosen for "PE: Play Everyday": jump rope; sneak attack; dance; cardio-kickball; parachute; fitness cards; basketball and soccer dribbling; health activities; and hydration (Table 1 contains a description of each station).

Additional preparation for "PE: Play Everyday" included: 1) securing and organizing space; 2) determining, gaining access, and organizing equipment for the activities; 3) recruiting university volunteers; 4) providing transportation for the local elementary school participants to and from the university; 5) providing police for organizing secure entry and exiting of buses on the university campus; 6) securing the availability of Certified Athletic Trainers; 7) providing greeters who escorted children from buses to activities;

8) designing participation certificates; 9) contacting local community engagement office for public relations; 10) soliciting and creating participation gifts for 4th and 5th grade children and teachers; and 11) designing and ordering t-shirts for volunteers and teachers. Lastly, assessments were created in order to evaluate the effectiveness of "PE: Play Everyday".

Phase II: Implementation

In order to facilitate effective implementation of "PE: Play Everyday," university volunteers participating in "PE: Play Everyday" practiced how they would teach, involve, and encourage students during each station. Implementation of "PE: Play Everyday" occurred during the 14th week of the spring semester on a Friday afternoon. "PE: Play Everyday" was originally planned to be held on the following Wednesday; however, it was moved due to standardized testing. Therefore, university volunteers learned how to be flexible when organizing an event.

Phase III: Assessment

A mixed methods approach was used to assess program success. Upon completion of "PE: Play Everyday", university volunteers assessed the success of the project by completing a brief survey. The quantitative portion of the survey included questions related to three main categories: planning/design (5 items), implementation (8 items), and overall satisfaction (2 items). Responses were on a Likert-type scale ranging from 1 (*disagree*) to 4 (*strongly agree*). Participating 4th and 5th grade teachers also completed a survey which consisted of four main categories: planning (4 items), design (4 items), implementation (4 items), and overall satisfaction (2 items). Questions were assessed on a Likert-type scale ranging from 1 (*poor*) to 4 (*excellent*). Elementary children completed two open-ended questions related to overall satisfaction and enjoyment in physical activity behaviors. Quantitative analysis for this exploratory project included descriptive statistics while qualitative data was organized using thematic analysis.

Results

University Volunteers

A total of 124 university volunteers participated in "PE: Play Everyday" and 57 (63% female, 37% male) completed the survey, representing a 46% response rate. The majority identified their university major as Physical Education – All Grade (49%) and Elementary Education/Special Education (39%); however, volunteers also identified their university major as Exercise Science (4%) and Other (4%). Volunteers identified the following academic rank at the university: Junior (42%), Sophomore (23%), Freshman (14%), Senior (11%), and Other (11%).

Planning/Design. Overall, university volunteers reported favorably ("agree" to "strongly agree") with the planning and design of "PE: Play Everyday" (M = 3.24, SD = .57; See Table 2). More specifically, on a four-point scale, volunteers reported "agree" to "strongly agree" that the group size was appropriate (M = 3.25, SD = .54), the gym space was used appropriately (M = 3.47, SD = .5), the equipment was ready for the elementary children (M = 3.51, SD = .50), and the transitions for the activity ran smoothly (M = 3.21, SD = .59); however, volunteers reported "somewhat disagree" to "agree" that children had enough time at each activity station (M = 2.82, SD = .76).

Implementation. Overall, university volunteers reported favorably ("agree" to "strongly agree") with the implementation of "PE: Play Everyday" (M = 3.45, SD = .55; See Table 2). More specifically, on a four-point scale, volunteers reported "agree" to "strongly agree" that their instructions/demonstrations were helpful (M = 3.33, SD =.51), activities were age appropriate (M = 3.44, SD = .50), and elementary children had the opportunity to be physically active (M = 3.53, SD = .50). On a four-point scale, respondents reported "agree" to "strongly agree" that the university volunteers who ran the activity stations were: helpful (M = 3.44, SD = .60); knowledgeable (M = 3.42, SD = .57); courteous (M = 3.49, SD = .57); demonstrated tasks (M = 3.44, SD = .60); and were respectful to children (M = 3.53, SD = .60).

Satisfaction. On a four-point scale, university volunteers reported "agree" to "strongly agree" that they enjoyed working "PE: Play Everyday" (M = 3.56, SD = .60) and would like to participate in "PE: Play Everyday" next year (M = 3.51, SD = .66; See Table 2).

Reflective questions. University volunteers answered four reflective questions about "PE: Play Everyday". The questions probed about volunteers perceptions the children's enjoyment of the experience, what they (the volunteers) learned from the experience, and how they felt the experience could be improved. Overall, university volunteers perceived the following as the top three activity stations most enjoyed by the elementary children: parachute (n = 19), dance (n = 14), and cardio-kickball (n = 12).

University volunteers reported that they will take several aspects from this experience to use in future endeavors, including: insight gained through working with the children (n = 8); organizing and planning a large event (n = 5); ways to promote physical activity (n = 6); and flexibility in teaching (n = 2). Gaining insight through actual interactions with children seemed to be a common theme throughout the responses. For example, one volunteer said "I think this is a great activity for physical education majors to participate in. It gives you a chance to see how kids act when they are participating in various activities." The experience provided the volunteers an opportunity to practice teaching behaviors in the program. One volunteer stated "At first I didn't do a very good job at giving instructions. My instructions were not clear." One volunteer reflected on learning how to be flexible in teaching, "I really learned how to change a lesson plan on the spot. With each group there were different challenges that forced us to change our lesson plan."

Volunteers provided recommendations for change or modification for future "PE: Play Everyday" planning and implementation. Of the 16 responses, most of the recommendations were activity related improvements (n = 10). For example, one volunteer commented on the task difficulty of the activity, "The criss cross jump rope… only a few students could perform…helpers should have

demonstrated regular jump rope, one footed jump rope, etc. (what was asked to do on the handout)." Other recommendations were related to the number of volunteers and elementary children (n = 4). Volunteers felt that there were too many volunteers, for example, one volunteer stated "The dance station…the kids had a wonderful time and the volunteers were upbeat…but…compared to other stations, the dance station had way too many people helping." Lastly, two volunteers recommended keeping all the activities within the same area. The hydration station was held in a different location from the rest of the activity stations, which were held in the gym. One volunteer at the hydration station commented "I felt like I was separated from the rest of the students."

Volunteers reflected on what they most enjoyed about the "PE: Play Everyday" experience. Of the 41 responses, it was clear that the interaction with children (n = 27) and seeing children have fun with activity (n = 16) were most enjoyable.

Local Elementary Teachers

A total of ten local elementary teachers participated in "PE: Play Everyday" and 8 completed the survey, representing an 80% response rate. The sample reported teaching 4th grade (50%), 5th grade (37.5%) and physical education (12.5%).

Planning. Overall, teachers reported the planning of "PE: Play Everyday" to be "good" to "excellent" (M = 3.81, SD = .26; See Table 3). More specifically, on a four-point scale, teachers reported "good" to "excellent" that the activity stations were easy to find (M = 3.88, SD = .35), activities were well organized (M = 4.0, SD = 0.0), group sizes were appropriate (M = 3.88, SD = .35), and sufficient time was spent for each activity (M = 3.5, SD = .53).

Design. Overall, teachers reported the design of "PE: Play Everyday" to be "excellent" (M = 4.0, SD = 0.0; See Table 3). More specifically, on a four-point scale, teachers reported "excellent" that the activity stations were easily accessible (M = 4.0, SD = 0.0), the gym space was used appropriately (M = 4.0, SD = 0.0), the activity stations were set up and ready when the children arrived (M = 4.0, SD = 0.0), and the transitions between stations ran smoothly (M = 4.0, SD = 0.0).

Implementation. Overall, teachers reported the implementation of "PE: Play Everyday" to be "good" to "excellent" (M = 3.91, SD = .13; See Table 3). More specifically, on a four-point scale, teachers reported "good" to "excellent" that the university volunteers were respectful to the children (M = 4.0, SD = 0.0), demonstrations helped the children (M = 4.0, SD = 0.0), the children were challenged by the station activities (M = 3.63, SD = .52), and all children were able to participate (M = 4.0, SD = 0.0).

Satisfaction. On a four-point scale, teachers reported "good" to "excellent" that their class was overall physically active (M = 3.25, SD = .46) and their overall impression of "PE: Play Everyday" was "excellent" (M = 4.0, SD = 0.0; See Table 3).

Elementary Children

Overall, 210 elementary children participated in "PE: Play Everyday" and 158 completed the survey, representing a 75% response rate. Forty nine percent reported being in the 4th grade, 40.5% reported being in the 5th grade, and 10.1% did not specify class level.

Elementary children identified several aspects of "PE: Play Everyday" that they enjoyed about the experience. Children reported cardio kickball (n = 51), parachute (n = 41), exercise and their heart pumping (n = 30), having fun and playing (n= 26), and dance (n= 24) as what they enjoyed the most about their "PE: Play Everyday" experience. Also reported, but with less frequency, included the people (n = 15), everything (n = 13), games (n = 8), jump rope (n = 8), basketball (n = 8), the place (n = 6), soccer (n = 5), and the hydration/break station (n = 4).

Elementary children also had the opportunity to identify their favorite form of physical activity and why. Elementary children's favorite forms of physical activity were grouped within the following emerging categories: lifestyle/individual sport; traditional sports; traditional games; and strength building. Lifestyle/individual sport included activities such as running (n = 28), biking (n = 15), dancing (n = 11). Other activities were also reported, with less frequency, such as swimming, walking, golf, jump rope, and karate. Traditional sports included activities such as softball/baseball (n = 15), soccer (n = 11), basketball (n = 8), volleyball (n = 4), and football (n = 2). Traditional games included activities such as kickball (n = 32) and parachute (n = 15). Lastly, strength building activities included sit ups (n = 8), push-ups (n = 3), and weight lifting (n = 2). When asked why they enjoy physical activity, elementary children reported the following: fun (n = 33), exercise/heart pumping (n = 11), achievement/challenge (n = 9), interact with friends (n = 6), they love/like it (n = 6), and they are good at it (n = 5). Other reasons were reported with less frequency, such as in order to express self, be creative, get the jitters out, and the excitement.

Discussion

"PE: Play Everyday", a community level project, was designed as one universities approach toward promoting a healthy lifestyle through physical activity as well as provide professional development opportunities for future educators. Overall, it was evident that children enjoyed being active. Children identified activities such as cardio kickball and parachute as enjoyable. Children also reported that they enjoyed exercising and their heart pumping as well as having fun and playing. This is an important factor to consider when designing programs that promote physical activity levels with children. Children love to have fun, move, feel their heart pumping, achieve (e.g. accomplish a task), and be competent. This is consistent within previous literature, in which having fun, exercise, improving skills, feeling self-determined and competent have been identified as factors contributing to sport participation and activity (Boiche and Sarrazin, 2009; Butcher, Lindner, & Johns, 2002; Schmidt & Stein, 1991). Interestingly, many of these factors are important contributors to motivation

and achievement (Weiss & Chaumeton, 1992). Therefore, meeting children's needs and providing exposure to activities that are fun as well as achievement oriented will facilitate motivation to continue to participate in physical activity. In addition, it seems as though many children loved to feel their heart pumping. Therefore, it would be helpful to reinforce the sensations associated with physical activity (e.g., heart pumping, sweating, heavy breathing) as positive and enjoyable. Lastly, children identified that they loved to run. This is a skill that they can enjoy individually or with others and is a skill related to life-long fitness. This suggests that running is a skill that needs to be continually reinforced. As children age, many participate in organized sport, and unfortunately coaches use of punishment (e.g., using running as punishment) often leads children to fear failure and no longer enjoy the activity (Smith, 2010). It is important to preserve this love for running and movement and use it as a form of reinforcement rather than punishment if we are going to continue to strive to increase physical activity levels.

Volunteers in this study were not only able to identify what types of activities kids enjoyed during the event (e.g., cardio kickball, dance, and parachute), but they were also able to critically reflect on the success of the event related to design and implementation. Both volunteers and teachers thought the event was successful, but the volunteers were more critical about the event, especially related to their performances. By volunteers actively leading different stations they were able to learn firsthand how children participate in activities (motivation and skill ability levels) and identify their success and failures in communicating (verbal and non-verbal) directions to children. Volunteers learned how to become more flexible and change activities on the spot to meet the needs of the children they were working with during the event, but most importantly they found their participation in the event useful for their future endeavors. As teacher educators, these types of service learning projects are not only in alignment with two of the National Initial Physical Education Teacher Education Standards (NASPE, 2009) related to professional growth and development (NASPE element 6.2) and the utilization of the reflective cycle (NASPE 5.3), but it also teaches them about their vital role in becoming an active citizens of their community through service.

Wechsler, McKenna, Lee, and Dietz (2004) were right; schools cannot solve the obesity epidemic on their own, it needs to be a community solution. In Indiana alone an estimated $1.637 million has been spent (1998-2000) for medical expenses related to obesity (NICHQ, 2011). Within the past few years programs like "Let's Move", sponsored by First Lady Michelle Obama (2011), and "Let's Move in Schools", a comprehensive school physical activity program sponsored by the National Association for Sport and Physical Education (2011) have encouraged our communities to stand up and do their part to help children live healthier active lives. "PE: Play Everyday" by no means is a complete solution to the obesity issue, but it is a beginning of something bigger, a community effort devoted to helping our children learn to be healthy. "PE: Play Everyday" offered the opportunity for children to enjoy physical activity as well as helped future educators learn to develop their teaching skills. This was one universities attempt to find additional ways for students beyond physical education class to enjoy being physically active.

References

Boiché, J.C.S., & Sarrazin,, P.G. (2009). Proximal and distal factors associated with dropout versus maintained participation in organized sport. *Journal of Sports Science and Medicine*, 8, 9-16.

Butcher, J., Lindner, K. J., & Johns, D. P. (2002). Withdrawal from competitive youth sport: A retrospective ten-year study. Journal of Sport Behavior, 25, 145-163.

Centers for Disease Control and Prevention (2009). Obesity Prevalence Among Low-Income, PreSchool-Aged Children – United States 1998-2008. *Morbidity and Mortality Weekly Report.* Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5828a1.htm.

Freedman, D., Dietz, W., Srinivasan, S., & Berenson, G. (1999). The relationship of overweight to cardiovascular risk factors among children and adolescents; Bogalus heart study. *Pediatrics*, 103(6), 1175-1182.

Indiana State Department of Health: Coordinated School Health Program (2011), retrieved 2/7/2011 from hhtp://www.in.gov/isdh/20542.htm.

Let's Move! Learn the Facts (2011). Retrieved 3/12/2011 from http://www.letsmove.gov/learnthefacts.php.

National Association for Sport and Physical Education: Let's Move in School, (2011) retrieved 02/08/2011 from http://www.aahperd.org/letsmoveinschool/.

National Association for Sport and Physical Education (2009). *National Standards & Guidelines for Physical Education Teacher Education*. Sewickley, PA: AAHPERD Publications.

National Initiative for Children's Healthcare Quality (NICHQ, 2011) – Indiana Fact Sheet, retrieved 2/7/2011 from http://nschdata.org/Viewdocument.aspx?item=536.

Ogden, C., Carroll, *M.*, Curtin, L., Lamb, *M.*, & Flegal, K. (2010). Prevalence of high body mass children and adolescents, 2007–2008. *JAMA* 303(3):242–9.

Okpala, C., Okpala, A., & Smith, F. (2001). Parental involvement, instructional expenditures, family socioeconomic attributes, and student achievement. *Journal of Education Research*, 95(2), 110-115.

Schmidt, G. W., & Stein, G. L. (1991). Sport commitment: A model integrating enjoyment, dropout, and burnout. *Journal of Sport & Exercise Psychology*, 8, 254-265.

Smith, R. E. (2010). A positive approach to coaching effectiveness and performance enhancement. In J. *M.* Williams (Ed.), *Applied Sport Psychology: Personal Growth to Peak Performance* (6th Ed., pp. 42-58). Boston: McGraw Hill.

U.S. Department of Health and Human Services, Public Health Services, Center for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition and Physical Activity, (1999). *Promoting Physical Activity: A Guide for Community Action.* Champaign, IL: Human Kinetics.

U.S. Department of Health and Human Services (2001). *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* (Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001).

U.S. Department of Health and Human Services (2008). *User's Guide: Promoting the Physical Activity Guidelines for Americans in Your Community: A Guide to Building Awareness and Participation.*

Wechsler, H., McKenna, *M.*, Lee, S., & Dietz, W. (2004). The Role of Schools in Preventing Childhood Obesity, retrieved 2/07/2011 from http://www.cdc.gov/HealthyYouth/physicalactivity/pdf/roleofschools_obesity.pdf.

Weiss, M. R., & Chaumeton, N. (1992). Motivational orientations in sport. In T. Horn (Ed.), *Advances in sport psychology* (pp. 61-99). Champaign, IL: Human Kinetics.

Whitaker, R., Wright, J., Pepe, *M.*, Seidel, K., & Dietz, W. (1997). Predicating obesity in young adulthood from childhood and parental obesity. *New Engl J Med,* 37(13):869–873.

Table 1. "PE: Play Everyday" Activity Stations

Station	Equipment	Description
Jump Rope	1 jump rope per child (40 total)	Spread the students out into a scatter formation so that each student has enough room to jump rope without getting hit. Have students try different ways of jumping (one jump in between a rotation, 2 jumps in between a rotation, jumping with 2 feet, jumping with 1 foot, alternating jumping from one foot to the other, jumping rope while moving through space, let them come up with a jumping pattern, let them tell you and try their favorite jump, etc.) * Remember to give students a few seconds to rest because they will be tired. Remind them that they will be able to get a drink soon at the water station.
Sneak Attach	5-6 items (bean bags, carpet squares, markers) 5-6 cones	Divide the group into even teams of no more than 6 students on a team. Each team is given a specific item that they are trying to collect. When you say go, one person from each team sneaks to any other team and collects one item to bring back to their cone. Make sure the next runner doesn't leave their team base until the previous runner returns. When the team collects all of their items, the team sits down so the instructor knows they are done. Before each round, evenly distribute the items back to each team cone. *After a couple of rounds, you can change team items, change team members, or explain that instead of always going for your team item, you may want to try to go for another team's item to keep them from finishing collecting first.
Dance	Stereo and CD with dance music	Quickly review basic steps to dance before starting the music. Most all of the students are familiar with the songs and movements. Be sure to have a volunteer in each direction so that when a dance turns to face the next side, the students have someone to watch.
Cardio-Kickball	20 playground balls and 4 bases	Have students find a partner. One partner raises hand. The people with the hands up are in the outfield team. The partner who is hands down is on the kicking team first. Once the first person kicks, he/she runs the bases without stopping. The second person kicks as soon as the first kicker begins to run. The base runners do not stop. The kicking team kicks through twice. The pitcher must yell "last kick." The fielders chase down each kick and run the ball back to the bin. The fielders may not relay the ball to each other. The object is to get all the balls into the bin before the fielders have all the balls in the bin beside the pitcher.
Parachute	Large parachute, whiffle balls, beach balls	Students hold parachute with one hand and walk, skip, gallop, run. Switch hands change direction and repeat locomotor skills. Lift parachute high, middle and low all while moving around in a circle. Have the students create a "wave" with the parachute. Then introduce a beach ball and have the ball "surf" the parachute. Have the students sit down with their legs under the parachute holding the parachute with both hands, the students will do sit-ups as a group. Popcorn - students shake the balls off.
Fitness Cards	1 deck of age appropriate fitness cards	Have students make a circle and place the deck in the center of the circle. Quickly go through the basic exercises on the cards, so students know how to safely perform the tasks. Ask for a volunteer to pick a card and then give students a number of times to perform the selected exercise (for example, if the card has jumping jacks – you would have the class perform a selected number of jumping jacks). Then ask for another volunteer to pick the next card. *If students are showing a lack of motivation, try playing the game with a time limit. (For example, let's see how fast we can do 10 fitness cards).
Basketball/ Soccer Dribbling	15-20 soccer balls 15-20 basketballs	Have students find a partner and have one partner get a soccer ball or basketball. Either set of a course for partners to continuously complete or have them travel in general space while practicing passing or dribbling. *Can include a time element, see how many successful passes they can complete in 30 seconds and then try to again to increase their score. Make sure students have a chance to use both the basketballs and soccer balls before leaving this station.
Health Activities	The Human Body	Students were divided into 2 teams and were instructed to form single file lines approximately 30 feet from a wall where outlines of the human body were hung. Two separate piles of pictures of several major body parts (heart, lungs, brain, liver, stomach etc.) were placed on the floor next to each line. Starting with the first person in each line, a student had to grab a picture of a body part, identify it's major function, run to the wall and correctly place it on the human body outline, and return back to the line. The second person in line then repeated the process.
Hydration	Cups/Water	Make sure students stay with their class and are seated in the pit area.

Table 2. Volunteer Survey (*n* = 57)

Questions	M (SD)
Planning and Design Overall	3.24 (.57)
The groups were sizeappropriate	3.25 (.54)
The gym space was usedappropriately	3.47 (.50)
The stations were set up and ready when students arrived	3.51 (.50)
Students had enough time at each activity station	2.82 (.76)
Transitions for activity ran smoothly	3.21 (.59)
Implementation Overall	3.45 (.55)
Your instructions/demonstrations were helpful	3.33 (.51)
Activities were age appropriate	3.44 (.50)
Students had the opportunity to be physically active	3.53 (.50)
Volunteers who ran stations were helpful	3.44 (.60)
Volunteers who ran stations were knowledgeable	3.42 (.57)
Volunteers who ran stations were courteous	3.49 (.57)
Volunteers who ran stations demonstrated task	3.44 (.60)
Volunteers were respectful to children	3.53 (.60)
Overall Satisfaction	
You enjoyed working PE: Play Everyday project	3.56 (.60)
You want to participate in PE: Play Everyday project again next year	3.51 (.66)

Table 3. Teacher Survey (*n* = 8)

Questions	M (SD)
Planning Overall	3.80 (.26)
The stations were easy to find	3.88 (.35)
The activities were well organized	4.00 (.00)
The group size were appropriate	3.88 (.35)
Students had enough time at each activity station	3.50 (.53)
Design	4.00 (.00)
The stations were easily accessible	4.00 (.00)
The gym space was used appropriately	4.00 (.00)
The stations were set up and ready when students arrived	4.00 (.00)
Transitions for activity ran smoothly	4.00 (.00)
Implementation Overall	3.91 (.13)
The workers were respectful to the students	4.00 (.00)
The workers demonstrations helped the students	4.00 (.00)
The students were challenged by the stations	3.63 (.52)
Students had the opportunity to be physically active	4.00 (.00)
Overall Satisfaction	
How physically active is your class?	3.25 (.46)
Overall impressions of PE: Play Everyday	4.00 (.00)

Experiential Classroom Learning: Preparing Students for a Sport Event Management Experience

By Glenna G. Bower
Contact Information:
Glenna G. Bower, Ph.D.
University of Southern Indiana
8600 University Blvd
Evansville, IN 47712
812-760-3617
gbower@usi.edu

Abstract

As more students enroll in sport management programs, there is an increased need for colleges and universities to provide students with not only classroom knowledge applicable to real-life situations but also active learning that helps begin the development of a well-trained sport management professional. In the academic setting active learning may be in the form of experiential learning. This article focused on an experiential learning experience of planning, organizing, leading and implementing a 5k race to raise funds for Sport Management Scholarships. Overall, the HOF 5k is an excellent experiential learning experience that raised $7212.00 and allowed students to receive a hands-on experience to help in the development of a well-trained sport management professional.

Keywords: Experiential Learning; Active Learning; Sport Event Management

Introduction

Participation in sport at all levels continues to grow. As participation increases career opportunities in sport have never been greater. The sport industry is the fourth largest growth industry in the United States with an increase from $152 billion to a $213 billion since 1995 (United States Department of Labor, 2009). This rapid growth has resulted in an increase in undergraduate and graduate sport management programs (about 20 in 1980 to over 300 today) as the need for well-trained sport management professionals are being sought (Masteralexis, Barr, & Hums, 2011). According to the Bureau of Labor Statistics (United States Department of Labor, 2009), career opportunities related to sport are expected to increase 15 percent faster than the average for all occupations through the year 2016. It is projected that there will be 562,000 sport management related positions available by 2016. The rapid increase continues for many reasons including: growth in the number of sport management programs; growth of the general public participating in organized sport; increased participation in organized sports by girls and women; increased number of baby boomers approaching retirement; and the large number of children of baby boomers participating in high school and college athletics (Hatfield & Hatfield, 2005).

As more students enroll in these sport management programs, there is an increased need for colleges and universities to provide students with not only classroom knowledge applicable to real-life situations but also active learning that helps begin the development of a well-trained sport management professional. Active learning involves the student "participating in an activity and reflecting about what they are doing" (Conley, 2008) and has been documented to stimulate curiosity, increase self confidences, develop critical thinking skills, solve complex problems, and retention of information (Wolf, 2006). In the academic setting active learning may be in the form of experiential learning. Experiential learning is a method that "stresses practical application of knowledge to real-world situations, which helps to develop the students' problem-solving skills" (Ruhaneu, 2005, p. 33). Experiential learning "aims to produce outcomes that promote educational growth, continuity and interaction, self-evaluation, and the ability to learn new skills, attitudes or entirely new ways of thinking" (Barclay, B., 2009, p. 6).

Educational researchers have clearly identified that experiential learning as a best practice in higher education settings (Byrd, 2009; Canberg, 2009; Duerden, 2010) and have developed experiential learning models to support practical application of knowledge to real-world situations (Herremans & Murch, 2003; Kolb, 1984; Kolb & Fry, 1975; Lewn, 1944, 1948). The "experiential learning" term can be tied back to Kurt Lewin (1944, 1948). Lewin influenced the understanding of leadership, action

research, group dynamics, and experimental learning. Lewin's action learning model focused on the interaction or the experience and was considered the most important to the growth or regression of an individual. Kolb and Fry (1975) presented a professional education model that recognized and developed emotional and intellectual components of learning. The model emphasized "generating an action theory from your own experiences, and then continually modifying it to improve your effectiveness" (p. 53).The model explained how "experience is translated into concept that can be used to guide the choice of new experiences" (Wolfe, 2007, p. 185). Finally, Herremans and Murch (2003) suggested that "interlocking benefits of the professional education model with the action learning model lends itself to the use of experiential learning techniques" (p. 67).

The purpose of this paper was to provide an overview of the pedagogical tool of applying theoretical concepts to an experiential learning experience through the integration of the professional and action learning models. A faculty member integrated the models into a class project where students learned to plan, organize, lead, and implement a 5k road race within a sport event management class. The 5k race was an excellent experiential approach to help students learn in a more meaningful and productive way to obtain vital skills in managing an event. The experiential experience promoted student leadership and the facilitation skills across three domains – lecture, learning activities, and the experiential learning experience.

The History behind the Experiential Learning Activity

The experiential learning activity was the planning, organizing, leading, and implementing a road race called the Hearts on Fire (HOF) 5k. The race became an opportunity through a community member that was invited to be a guest speaker in a sport event management course. A requirement of the all students within the sport event management course was to assist with one community event and by having the Race Director come speak to the class provided the student with an opportunity to ask questions and determine whether this was the event they wanted to work. In addition, students had the opportunity to hear about the potential internship the Race Director was offering for the SIC Marathon and Half Marathon.

During her visit to campus, the Race Director were introduced to the Golf Scramble which was a "hands-on" experiential learning event students were planning, organizing, leading and implementing to raise funds for sport management scholarships and professional development funds for travel. This "hands-on" experience was interesting to the Race Director because she was planning a race series leading up to the SIC Marathon/ Half Marathon the following year. Once the Race Director saw the structured planning that was being delivered within this course, the success of the golf scramble, and the initiative of the students volunteering for the Marathon/ Half Marathon race it was easy to for her to approach the Associate Professor of the sport event management class to plan and host the first race of the WinterMeltdown Series. The race was going to be a huge responsibility because the second race of the series was the Run of Luck 7k which had been a tradition for the past 11 years in the community. In addition, the SIC Marathon/Half Marathon was a Boston qualifier attracting many runners from all of the United States during its inauguration. However, the opportunity to work with community partners to develop and implement a race series fit well with community engagement which was a strategic goal of the university. Through community engagement there were benefits for the university, students, the sport management program, and the organizations. The benefits to the university included the development of partnerships and relationships with community organization, public awareness, and future collaborative work. The students and the program benefited from potential internship or job opportunities, the opportunity to raise additional funds for scholarship and professional development travel, and the opportunity to establish community partners. The community partner benefited by establishing a partnership with the university bringing greater awareness of their own organization and/ or event, connections to the sport management program and students, and the potential to share university resources (Bryd, 2009). The remainder of this paper discusses the steps taken to plan, organize, lead and implement the HOF 5k race as an experiential learning experience.

Creating the Committee Leadership Team

It was imperative the planning of the race begin during the summer, therefore the professor contacted university officials to begin meeting and to secure the date for the road race. The date was confirmed for February 12th which was ideal for a Valentine's Day race theme. The only obstacle was recruiting students to help in the planning of the event during the summer because there was no event management course being offered. The Sport Management Club Board of Governors (BOG) became the obvious choice for HOF 5k Leadership Team because they were first semester seniors who successfully implemented the golf scramble in the spring sport event management class. The professor taught the spring sport event management class by lecturing on topics to broaden the student's theoretical knowledge about planning an event but also advocating the use of experiential learning to bridge the gap. Students learned specific leadership techniques through their experiences as leaders of their golf scramble committees. Those leadership techniques represented the "how" and the tools the student leader needed to move the group towards desired outcomes. With the student's background, there was less explanation needed on the steps to follow in planning, organizing, leading, and implementing of the road race due to their experience with the golf scramble. Students were also familiar with securing sponsorships after completing their sport marketing course where they solicited sponsors for the golf scramble. The leadership team was the first group of students needed to implement the race but there needed to be an organized course offered during the fall semester. Since a sport event management class was not on the regular course offerings for the fall

semester a special topic course was introduced to allow students to receive credit counted towards the student's graduation requirements. The remaining key players were the sport event management students that were recruited as volunteers during the spring semester.

The next step was to assign the BOG members as committee leaders. The Race Director was considered the sport event management Associate Professor who corresponded with the other two race directors (Run of Luck 7k & SIC Marathon/Half Marathon) throughout the entire series. In addition to the Race Director, each BOG volunteered for a leadership position as a Director of one of the six HOF 5k race committees: (a) operations, (b) registration, (c) sponsorship, (d) promotion and publicity, (e) awards, and (f) cupid fest. The leaders were provided with a copy of pre-race, race day, and post-race responsibilities (Tables 1-7). The leaders began to work on pre-race responsibilities they could accomplish until the course began in the fall and committees could be formed.

The Course Requirements

Once the special topics class began meeting, each Director coordinated and led meetings, managed communication between committees, and was responsible for making sure all responsibilities were met. The Director also updated other committees on their completion of responsibilities on a weekly basis. The committees met once a week until the race drew closer.

The special topics course was developed the same as the sport event management course with a syllabi and an experiential learning activity outline to complete the task. The experiential learning activity outline corresponded with lectures and consisted of defining the event (visualizing and positioning the event), HOF Overview (the budget, the sponsorship proposal, race distances, the Cupid Funfest, The contests), the committee responsibilities, the results and reflection. A lecture was given, followed by the committee work from the experiential learning activity, and finally the hands-on experience of the implementation of the HOF 5k. The grading scale was the same as the one used for the sport event management course.

Defining the Event

It was time to define the event once the Committee Leadership Team was in place and briefed on the WinterMeltdown Series Races. The students began by using two strategic steps which consisted of visualizing and positioning the event and clarifying goals and objectives (Mullen et al., 2007). The students developed an overall vision statement (Table 8) for the future of the event and the mission statement (Table 9) providing the roadmap or game plan for the race. The vision, mission, and goals all comprised of offering an event that supports the current sport management scholarship and professional develop travel funds. The positioning of the event happened rather quickly as the SIC Marathon/Half Marathon Race Director wanted the name and logo right away. The Committee Leadership Team brainstormed to come up with a Valentines theme race. After many days of debate the team established the race name as the Hearts on Fire 5k. In addition, concepts were introduced to the university designer that led to a HOF Fire 5k logo.

HOF Race Overview

The Budget

Students also became more specific on the discussion of overall race goals of revenue generated and number of participants. The revenue generated goal was determined through the initial budget proposal. The event began with a 0 based budget. Several items were considered when developing the initial budget but it was not until the end the final invoices provided us with an idea of our revenue and expenses. The revenue line items consisted of registration, sponsorships, and booth rentals. The expense line items consisted of University chargeback's (tarp for gym floor, golf cart, and security expenses), the timing company, registration forms, awards, marketing materials, t-shirts, website domain, fruit, and cupid funfest materials. Some of the expense line items were in-kind gifts or sponsorships which did not cost HOF 5k race anything. For example, the awards, volunteer & staff shirts, Cupid Funfest materials, and fruit for runners were in-kind gifts that covered specific expense costs.

The Sponsorship Proposal

The sponsorship proposal was developed from a similar outline used to solicit sponsors during the golf scramble. The sponsorship levels consisted of the Cupid Package (Title Sponsor - $2500.00), the Heart Package ($1000.00), and the Red/White/Pink Package ($200.00). There were also Sweetheart Packages which consisted of Promotional Printing Materials, Awards, and T-Shirts. The most popular sponsorships were the sweetheart packages where a sponsor was secured for awards and all t-shirts (volunteer, staff, kids) except for participants. In addition, a 50% discount was given towards registration forms.

Once the HOF 5k race was defined it was time to begin brainstorming on how to make this event more than a typical road race. The HOF Leadership Team focused on the specific areas to attract a wide variety of people for an inaugural event. The attractions included race specifics, the cupid funfest, and contests that added more to the event. Race specifics included online registration, early registration discount, packet pick-up, bag check, and a wide variety of races offered. Online registration was set-up with Active.com which was the company used by the Winter Meltdown Series to track runners that signed up for all three races (HOF 5k, Run of Luck, SIC Marathon/Half Marathon). All runners that signed up for all three races received an incentive of a Winter Meltdown Series Jersey and an overall discount. The early registration cost was $20.00 which was a $5.00 discount off of the late registration fee of $25.00. The students voted to have an early packet pick-up on the Friday before the race. There was also a bag checking service provided to those runners wanting to leave their gym bags in a secure area. A bag checking service is usually only offered for bigger races like the SIC Marathon/Half Marathon but we had the volunteers to oversee this service and it was an added benefit for the runners and walkers.

Race Distances

The distance of a 5k race was decided upon by the Winter MeltDown Series Race Directors. In addition, all the courses (5k run/walk, 1 mile walk) had to be approved and therefore the HOF Race Director and Director of Operations worked closely with campus security to receive approvals. The 5k race was developed and approved first and uploaded to the HOF website. The website was developed by the promotion and publicity committee but designed and updated by a university web designer. The next set of races consisted of a kid's series which were later named the "cupid fun runs." The cupid fun runs consisted of a variety of race distances ranging from 50 meters to 1 mile with the age ranges being between 0-12 years of age (Table 10). The HOF 50 meter had 4 participants that were 2 years of age. The students also decided to offer a 1 mile and 5k walk. The age divisions for the 5k walk/run and 1 mile walk ranged from 15 and under to 65 and over (Table 10). The oldest participant was 75 years of age.

All kids received a medal. All age divisions were awarded for top 3 places in male and female and overall male and female 5k runners. The walkers were awarded the top three overall male and female for the 1 mile and 5k walk. A sponsor covered the cost of all the awards.

The Cupid FunFest

The HOF Cupid FunFest took place during and after the race. The Cupid FunFest Committee Directors worked closely with the special events office on campus to determine the layout of the festival. The HOF Funfest consisted of free food, giveaways, inflatables, clowns, and several vendors. The vendors were asked to pay a $25.00 fee to open their booth on Friday during early packet pick-up and Saturday race day. The vendors consisted of sport drink companies, running stores, sport clothing stores, and many others. Sponsorships covered the cost of all Cupid Funfest activities which allowed for 100% profit of all vendors purchasing a booth.

The Contests

The students voted on three contests for the HOF race in which winners were announced during the awards ceremony. The contests consisted of best costume, best couples costume, and best cupid family. The awards committee was responsible for judging the winners of these contests. The awards for the contests were also 100% sponsored.

The Results and Reflection

Students worked nonstop three days prior to the event with stuffing packets and cupid funfest set-up. The day of the race was early but all students showed up and were ready to implement the race. The HOF 5k was a success in that it was the largest for an inaugural 5k race in the area with 741 participants. This number was way above the projected 350. The students raised $7212.00 to go towards sport management scholarships and professional development travel funds. The Sport Management Program and club received recognition and the community was surprised to find the event was student led.

A debriefing meeting was scheduled two days following the event to reflect on areas that needed improvement for next year. As stated by Conley (2008), the experiential learning experience not only involves participating in the activity but it also allows the student to analyze their strengths and weaknesses and to think about how to enhance or develop into a more skillful sport event manager. Warrick et al. (1979) "to facilitate meaningful, active learning, students must have opportunities to reflect on their experience, have a period of emotional release, receive behavioral feedback, integrate their observations, behavior and feedback into a conceptual framework and create mechanisms and pathways for transferring learning to relevant outside situations" (p. 91).

The professor focused on integration or embedding meaning of the student feedback with the theoretical knowledge taught in the classroom (planning, organizing, leading through lecture & Learning Activities) throughout the debriefing process. In essence, the integration of the course format, golf scramble experience and the debriefing process "set the stage for assimilation of knowledge, skills, and attitudes into practice and provided a path for transference into the future [sport management] environment" (Dreifuerst, 2009, p. 111).

The Conclusion

Experiential learning may be an excellent strategy for teaching sport management courses although it may not be ideal for all instructors. With an experiential learning experience students do need to be mature and comfortable with independent learning while the instructor needs to act as a facilitator and be comfortable relinquishing some control over to the class. In addition, the experiential learning experience takes more time to complete and it requires constant monitoring. However, the professor and students found the HOF 5K was a wonderful and successful experiential learning experience. Planning for next year's HOF 5k has already begun with the new sport management club president leading the way as Operations Director. The facilities and courses have been secured for February of 2012. A sport event management class was added for the fall semester so students may complete the HOF 5k hands-on experiential learning experience to stress practical application of knowledge to a real-world situation (Ruhaneu, 2005). Overall, the race was a success and an excellent experiential learning experience that allowed students to receive a hands-on to help in the development of a well-trained sport management professional.

References

Barclay, B. (2009). Implementing experiential learning courses to teach students leadership principles. *MAHPERD Journal*, 6(1), 3.

Byrd, E. T. (2009). Howling wolves: Active experiential learning in event management. *A Journal of Leisure Studies & Recreation Education*, 24(1), 148-155.

Canberg, A. S. (2009). Event management: An experiential learning approach. Schole: *A Journal of Leisure Studies & Recreation Education*, 24(1), 131-137.

Dreifuerst, K. T. (2009). The essentials of debriefing in simulation learning: A concept analysis. *Nursing Education Perspectives*, 30(2), 109-114.

Duerden, *M.* D. (2010). Theory and practice of experiential education. *Journal of Leisure Research*, 42(4), 653-655.

Hatfield, L. *M.*, & Hatfield, L. C. (2005). Careers in the sport industry. In Comfort, Greg P. A. Missouri Baptist University (ed.), Director of Graduate Programs in Sport Management, Morgantown, W. Virginia, Fitness Information Technology, xxiii-xxvi.

Kolb, D. A., & Fry, R. (1975). Toward an applied theory of experiential learning. *Theories of Group Process*, London: John Wiley.

Mullen, B. J., Hardy, S., & Sutton, W. A. (2007). *Sport Marketing*, 3rd Edition. Champaign, IL: Human Kinetics.

Parkhouse, B. L., & Pitts, B. G. (2001). Definition, evolution, and curriculum. In B.L. Parkhouse (Ed). *The management of sport: Its foundation and application* (3rd ed.). New York: McGraw-Hill.

Ruhaneu, L. (2005). Bridging the divide between theory and practice: Experiential learning approaches for tourism and hospitality management education. *Journal of Teaching in Travel and Tourism*, 5(4), 33-51.

United States Department of Labor. (2009). Bureau of labor statistics. Retrieved on May 30, 2011, from htt://www.bls.gov/oco/ocos251.htm.

Warrick, D. D., Hunsaker, P. L., Cook, C. W., & Altman, S. (1979). Debriefing experiential learning exercises. *Journal of Experiential Learning and Simulation*, 1, 91-100.

Wolfe, K. (2006). Active learning. *Journal of Teaching in Travel and Tourism*, 6(1), 77-82.

Table 1. Race Director Responsibilities

PRE-RACE RESPONSIBILITIES
Develop all course materials and recruit students to sign-up for the classes.
Oversee all student committees and volunteers and assist them with their responsibilities. These committees and volunteers are students from the club, a special topics course, and a sport event management course
Contact Special Events to secure date of race, course approval, building reservations, course security, permits, certificate of insurance, fire department notifications, medical aid stations, and ambulance
Contact Budget Administrator on campus to set-up an account
Secure online registration company with assistance from the SIC Marathon and Half Marathon Race Director
Collaborate with group to decide on the name, theme, and logo for the event
Purchase a domain and contact web designer on campus to begin working with the Director of the Promotion and Publicity Committee.
Assists students to develop and maintain budget
Determine committee leaders for operations, registration, sponsorship, promotion & publicity, awards, and cupid funfest.
RACE DAY RESPONSIBILTIES
Make sure all committees and subcommittee are withholding their responsibilities
Develop an outline for race introductions
Start race or appoint a designee
Provide assistance in all areas throughout the event
POST RACE RESPONSIBILITES
Assist with clean-up
Follow-up with university administrators
Pay invoices
Finalize budget
Assist with sending thank you letters
Organize reflection meeting and begin recruiting leaders for next year's HOF 5k event

Table 2. Director of Operations Responsibilities

PRE-RACE RESPONSIBILITIES
Collaborate with race director on developing and securing course date, approval of course, course security, certificates & insurance, fire department notification, medical aid stations, ambulance.
Develop an operations budget
Secure race numbers/safety pins, paper cups for water stations, trash cans, tables, stopwatches, clock, pistol, start/finish banner, PA and communication system
Secure tables and chairs for volunteer area, pre/post registration, problem table, medical/aid stations, water stations, clothing check-in, picture and sponsorship area
Secure runner's information prepared for distribution
Determine the number of volunteers needed and submit to Race Director
Secure timing service running/walking club
RACE DAY RESPONSIBILITIES
Post course/informational signs
Set-up problem table, volunteer table, medical area, water stations, trash cans, a results area for timing service
Brief police, course officials, start/finish officials
Set-up start/finish with banner, review stands, PA system, finish tape, and chute materials digital clock
POST RACE RESPONSIBLITIES
Assist with clean up
Assist with sending thank you letters
Provide report on improvements for next year's race

Table 3. Director of Registration Responsibilities

PRE-RACE RESPONSIBILITIES
Collaborate with promotion and publicity committee to develop registration form
Determine the number of volunteers needed and submit to Race Director
Pick-up registration forms from the printer
Secure pencils, tables, chairs, cash box, race packet bags
Set-up a data system for race day registrations
Set-up race packet development day
Send letters to participants about packet pick-up
RACE DAY RESPONSIBILITIES
Set-up pre-registration area with printout lists, pencils and packet pick-up
Set-up late registration area with entry forms, pencils, race numbers/ pins, race packets, cash box/change
Have greeters available outside the building to direct the runners to registration area (this is in addition to proper signage the registration area will post).
Take down registration area when race begins.
Assist Cupid FunFest Director as needed.
POST RACE RESPONSIBILITIES
Assist with clean up
Deposit late registration money
Send thank you letters to all participants about specific highlights and award pick-up (if they did not stay for the awards).
Provide report on improvements for next year's race

Table 4. Director of Sponsorship

PRE-RACE RESPONSIBILITIES
Identify areas where sponsorship and donations would be possible – registration, flyers, t-shirts, signage, Cupid Fest booths, race numbers, awards, giveaways, registration bags and items.
Collaborate with class to develop sponsorship packages
Develop sponsorship proposals, flyers and contracts
Log sponsorships
Deposit sponsorship money
Inform Race Director about any sponsorship donor that will be onsite race day
Determine sponsorship area – collaborate with operations
Collaborate with promotion and publicity on photographer timeline
Collaborate with operations on questions specific to sponsorship
RACE DAY RESPONSIBILITIES
Set-up sponsorship area – have someone greet sponsors
Locate photographer to take pictures of sponsors
POST RACE RESPONSIBIILTIES
Assist with clean up
Send thank you letters to all sponsors
Provide report on improvements for next year

Table 5. Director of Promotion and Publicity

PRE-RACE RESPONSIBILITIES
Distribute of entry forms through mailing, at running stores, health clubs, at races (develop a plan to distribute to committee members) – develop a list of key areas to distribute entry forms
Release media announcement to university papers, local newspaper and TV/radio Stations – News and Information helped with this but the leader needed to make sure it was done
Develop and maintain website (we had a web designer – the leader sent updates)
Develop and maintain Facebook
Determine the number of volunteers needed and submit to Race Director
Secure a photographer to take pictures
Collaborate with operations on questions specific to promotion and publicity
RACE DAY RESPONSIBILITIES
Collaborate with operations on distribution of signage
Communicate with photographer on where and when to take pictures
Greet the press and provide interviews
POST RACE RESPONSIBILITIES
Assist with clean up
Provide report on improvements for next year

Table 6. Director of Awards

PRE-RACE RESPONSIBILITIES
Determine age groups and awards
Oversee awards and results posting/distribution from timing company
Collaborate with operations to determine where the awards will be posted/distributed
Collaborate with operations with set-up of picture area and with the promotion and publicity committee for photographic timeline
Determine how the awards will be arranged
Collaborate with sponsorship to secure award
Collaborate with race director to secure podium/announcing stand
Inform race director on the number of tables and chairs needed
Inform race director on the number of volunteers needed for the event
Develop the outline for the awards ceremony
Collaborate with promotion and publicity committee on photographer timeline
Determine the number of volunteers needed and submit to Race Director
Collaborate with operations on questions specific to awards
RACE DAY RESPONSIBILTIES
Set-up awards area
Set-up picture area
Make announcements of posting of awards
Announce and hand-out awards
Assist with Cupid FunFest
POST RACE RESPONSIBILITIES
Assist with clean up
Provide report on improvements for next year

Table 7. Director of Cupid FunFest

PRE-RACE RESPONSIBILITIES
Collaborate with Race Director to secure site
Develop a schematic drawing to see the number of booths available to sale and the placement of those booths
Develop a list of potential vendors for the booths
Collaborate with sponsorship committee to contact vendors
Collaborate with promotions and publicity on photographer timeline
Collaborate with operations in developing survey questions specific to the Cupid FunFest
Determine the number of volunteers needed and submit to Race Director
Secure hospitality room and food & drinks for vendors
Gather tables for event and set-up night before event
RACE DAY RESPONSIBILITIES
Have welcome greeters help with loading and unloading
Oversee all aspects of the Cupid Funfest
POST RACE RESPONSIBILITIES
Assist with clean-up
Collaborate with sponsorship and awards committee to send thank you cards to sponsors, volunteers, contributors, etc
Provide report on improvements for next year

Table 8. Mision Statement

The Hearts on Fire 5k provides an opportunity for students to interact with fellow peers and community members. The HOF provides an equal opportunity for all participants in helping to raise scholarship and professional development funds, and encourage social involvement in an enjoyable environment.

Table 9. Mission Statement

The Hearts on Fire 5k offers a safe, fun, and exciting event that encourages community involvement among participants and USI students. The Hearts on Fire 5k Leadership Team is dedicated to raising funds for sport management student scholarships and professional development travel while providing awareness of the sport management program and hands-on experience for students.

Table 10. Age Categories

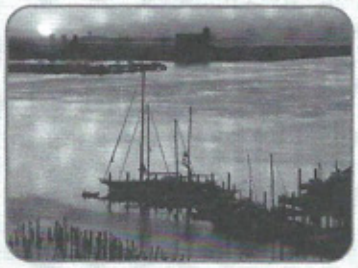
CUPID FUN RUNS
0-2 = 50 meters 3-4 = 50 meters 5-6 = mile 7-9 = mile 10-12 = 1 mile
AGE DIVISIONS – MALE AND FEMALE

Top 3 places in male & female and overall male & female 5k
15 & under
16-17
18-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+

Future AAHPERD National Conventions

2012

March 13–17
Boston, Massachusetts



Boston is a city rich in history and culture and offers something for everyone. Eat clam chowder at historic Faneuiel Hall, stroll through one of the many bookstores in Harvard Square, shop the chic boutiques on Newbury St., cheer on the Red Sox at Fenway Park, or simply stroll along the Charles River. Don't miss a walk along the two-and-a-half-mile Freedom Trail which is one of the best ways to get acquainted with Boston and to efficiently visit the city's bounty of historic landmarks.

2013

April 21-27
Charlotte, North Carolina

Truly a dynamic city, the changing face of Charlotte will surprise you. Walk along the bustling streets of Center City, step aboard the Historic Charlotte Trolley in South End, or stroll along the tree-lined streets of Dilworth to experience the warmth and Southern hospitality that visitors to the Queen City have come to know.

2014

April 21-27
St. Louis

Meet me in St. Louis, the gateway to the west. Here you can take in the view from the top of the Arch, America's tallest manmade monument, observe nature's power at the confluence of the Missouri and Mississippi rivers. You can get up close and personal with the Clydesdales and tour the historic Anheuser-Busch brewery, or cheer for one of the home teams, including baseball's Cardinals, the Rams football or the Blues hockey team. In the evening enjoy some authentic blues and jazz at one of many St. Louis night spots.

Peer Reviewed: Advocating for Physical Education

Advocating for Physical Education:
Local Initiatives and Resources Available through IAHPERD

By K. Andrew Richards
Contact Information:
K. Andrew Richards
Department of Health and Kinesiology, Purdue University
800 W Stadium Ave., West Lafayette, IN 47907
860-681-5498
karichar@purdue.edu

Abstract

The purpose of this article is to provide a brief overview of historical, political, and economic factors that contribute to the marginalization of physical education in schools, and to encourage physical education teachers to advocate for their discipline. Local advocacy initiatives are discussed as well as resources available through IAHPERD. The case is made that all physical educators have the potential to be local advocates and that the viability and visibility of physical education depends upon practitioner involvement in advocacy. Readers are introduced to a selection of IAHPERD's advocacy initiatives and resources, which are well positioned to assist physical educators toward this end.

Key Words: physical education, IAHPERD, advocacy

Background and Overview: The Need for Advocacy

For historical, political, and economic reasons, these are trying times for school-based physical education professionals. Historically, physical education has long been positioned as marginal in the context of schools. It has been a subject concerned with development of and through the physical in a context that has tended to fixate upon the development of intellectual prowess (Ennis, 2006). As captured through the work of Templin and colleagues (Schempp, Sparks, & Templin, 1993; Sparks, Templin, & Schempp, 1993; Templin, 1989) among others, this marginalization has played a significant role in constraining the work of physical education teachers. It is difficult for physical education to advance as a subject while fighting for legitimacy within the structure through which it wishes to be recognized. This historical subordination of physical education has been exacerbated by contemporary political and economic trends.

From a political perspective, physical education has not been able to develop the status of an academic subject. The National Association for Sport and Physical Education ([NASPE], 2010b) points out that the definition of an academic subject is somewhat ambiguous and that physical education shares many of the characteristics common to other subjects (e.g., assessment, curriculum, shared body of knowledge). However, state and federal policies have placed a strong emphasis on the subjects that have been identified as part of the academic core as defined by No Child Left Behind (US Department of Education, 2002). Since physical education is not a part of the core curriculum, marginalization within the context of the school structure has been perpetuated. Rather than educating the whole child, No Child Left Behind encourages administrators and teachers to focus the majority of their resources on intellectual development.

In a similar vein, the current economic downswing has impacted the provision of physical education. Many schools are being required to make drastic cuts in order to balance their budgets. As a part of these cut backs, schools are forced to reduce their teaching faculty and staff. Since state law does not require physical education in Indiana elementary and middle schools, it is often reduced or eliminated. High school physical education, which only carries a two credit requirement, is not exempt from reduction either. This is especially true given a recent state decision to increase credit flexibility by offering end-of-course assessments in physical education and other subjects. In recent years, even schools which have traditionally had strong physical education programs have been forced to make cuts. In more prosperous times they would likely retain physical education in order to provide a more holistic education, but during a recession choices must be made. Unfortunately, the choice that many districts have turned to is a reduction in "specials" in order to balance budgets while maintaining the focus on academics that is promoted by state and federal education policy.

Taken together, historical, political, and economic trends have strained efforts to provide quality physical education in Indiana as well as other

states across the country. Despite ongoing support from the Centers for Disease Control and Prevention (CDC), the US Department of Health and Human Services (USDHHS), NASPE, and the President's Council on Physical Fitness and Sport (Le Masurier & Corbin, 2006), as well as from parents and students (NASPE, 2000), the reduction of physical education continues. All the while, data indicate that America's children continue to grow more sedentary and overweight (James, Leach, Kalamara, & Shayeghi, 2001). Although it is not reasonable to surmise that a stronger commitment to school-based physical education would end the obesity epidemic, quality physical education that follows the NASPE (2010a) guidelines does guarantee that children will get at least a portion of their daily allotment of physical activity (Le Masurier & Corbin, 2006). Thus, physical education can be seen as a valuable component to children's overall wellbeing. As valuable as it might be, however, historical as well as current trends indicate that the future of physical education cannot be taken for granted.

Advocating for Physical Education

In order to bring stability to the profession of physical education in these times of growing uncertainty, physical educators must become advocates for their programs. Advocacy as it relates to physical education involves a public display that communicates the positive outcomes of the subject in relation to the health and wellbeing of students. There are many ways in which physical educators can advocate on their own, but at times it becomes necessary to reach out to others for support. The purpose of this article is to provide a brief overview of some of the advocacy efforts physical educators can participate in on a daily basis, while also providing a summary of the advocacy tools that are provided through the Indiana Association for Health, Physical Education, Recreation, and Dance (IAHPERD).

Program Advocacy

At the most fundamental level, all physical education professionals have the potential to be advocates. All that is required is a sense of dedication to one's work and recognition of the need to promote the benefits of physical education. Advocacy begins with the development of a quality physical education program (NASPE, 2010a) that is aligned with state (Indiana Department of Education, 2008) and national (NASPE, 2004) standards. However, while this is necessarily the first step, in order to advance the profession and focus positive attention on one's own program, it is often just the beginning. Beyond quality, standards-based instruction there are several steps physical educators can take as part of their daily routine that can help to advocate. These include: showcasing one's program, understanding and communicating the benefits of physical activity, speaking out for physical education, and becoming an involved professional. This list is not meant to be all inclusive, but does cover some of the more fundamental forms of advocacy that all physical educators can access.

Showcase the Program. Once a physical educator has helped to establish a quality physical education program, it is important to showcase it in the school and community. In the school building this can be achieved through physical education demonstrations at assemblies, bulletin boards in common areas that show what students are doing in physical education, and by making announcements at staff meetings, to name a few. Parents can be reached through monthly newsletters, parent-teacher conferences, and regular student evaluations that document progress and make recommendations for areas of improvement. Awareness can be raised in the community through the physical education teacher's involvement in youth sport and recreation events and by developing a presence at extracurricular activities such as school plays and evening assemblies. By developing a school and community presence, the physical education teacher can help to focus positive attention on the physical education program, which is paramount to building support among colleagues, parents, and other stakeholders. This support can be valuable if budget cuts and staff reductions force physical education teachers to defend the legitimacy of their discipline.

Understand and Communicate the Benefits of Physical Activity. Beyond providing quality physical education and showcasing the program to others, it is important to be able to articulate the reasons for why physical education and physical education are important. Toward this end, the benefits of engaging in regular physical activity are well documented. Research has highlighted positive impacts on self-esteem (Bobbio, 2009), cardiovascular and muscular fitness (Astrand, 1992), academic performance (CDC, 2010), and increases to overall health and wellbeing (USDHHS, 1996). Developing an understanding of these benefits as well as the ability to communicate them to students, colleagues, administrators, and parents is an essential component of advocacy. It is also important to be able to articulate physical education's role in developing a healthy lifestyle as well as providing children with movement opportunities during the school day.

Speak Out for Physical Education. In addition to advocating for one's program in the school and community on a daily basis, sometimes it is necessary to take additional actions in support of physical education. If a situation arises in which colleagues or administrators are speaking critically about the role of physical education in the school, the physical educator may need to rise to the defense of the profession. Similarly, when program cuts are being discussed in school board meetings the physical educator can be an advocate by speaking on behalf of the program. In the past, IAHPERD has organized legislative action days at the statehouse in Indianapolis, which gives practitioners a chance to voice concerns to their legislators. On a larger scale, NASPE holds an annual "Speak Out! Day" in Washington, DC to connect physical education professionals with federal lawmakers. Depending on contextual factors and the climate of physical education in one's school and the state, the need to speak out on behalf

of the profession will vary from time to time. However, when budget cuts are lurking or the status of physical education is being questioned, there is no more important form of advocacy.

Become an Involved Profession. Paramount to being an informed professional and advocate is staying up-to-date on current trends and issues in the profession of physical education. Professional journals, such as the Indiana AHPERD Journal and the *Journal of Physical Education, Recreation and Dance* (*JOPERD*), provide physical educators with opportunities to stay current and even to contribute as authors. Professional conferences, such as the annual IAHPERD Conference, provide an excellent opportunity for physical educators to learn; collaborate with other health, physical education, recreation, and dance professionals; and contribute to the development of new knowledge as presenters. Serving on school and community committees as well as professional committees also constitutes professional involvement. For example, IAHPERD has several councils and committees that are always looking for practitioner involvement. Whichever route one chooses to take, the key is to remain active as a professional in order to stay abreast of the most recent knowledge, trends, and best practices, and to contribute through service and engagement.

IAHPERD Advocacy Resources

Although the desire and motivation to advocate must begin with the individual, those who are willing to rise to the challenge can find a variety of advocacy resources that are made available through IAHPERD. The following represent some of the ways in which IAHPERD is able to assist physical education professionals who want to focus positive attention to their programs, or defend them against cutbacks and marginalization.

IAHPERD Advocacy Webpage. Just launched earlier this year, IAHPERD's Advocacy Webpage serves to connect members with advocacy resources and provides them with an opportunity to get involved with IAHPERD's advocacy initiatives. Links to NASPE's advocacy toolkit and AAHPERD's Legislative Action Center are provided along with information related to Physical Education for Progress (PEP) Grants and other pertinent resources. Interested members and non-members can access the website through its direct URL (http://www.inahperd.org/index.php?option=com_content&view=article&id=146&Itemid=218), or by clicking the advocacy tab on the top of the IAHPERD homepage.

IAHPERD Advocacy Committee. IAHPERD's Advocacy Committee is dedicated to promoting advocacy efforts for health, physical education, recreation, and dance in Indiana. The committee has four key responsibilities: 1) develop an advocacy plan for the year; 2) support key advocacy initiatives and public relations efforts in the areas of health, physical education, recreation, and dance; 3) be aware of legislative affairs that impact health, physical education, recreation, and dance; and 4) aid in the planning and conduct of a Legislative Summit at the State House in Indianapolis. Currently, the chair of the Advocacy Committee is K. Andrew Richards who may be reached at karichar@purdue.edu.Through its mission, the Advocacy Committee works to respond to advocacy issues arising at the local and state levels.

Local support and advocacy. The Advocacy Committee works with IAHPERD's Executive Committee to respond to and address concerns and advocacy initiatives that arise at the local level. Members who experience circumstances that require concentrated advocacy efforts are encouraged to contact the Advocacy Committee for resources and support. Depending on the nature of the situation, committee members may also be able to meet with individuals in order to organize advocacy plans and materials and present in to teachers groups, boards of education, and school administrators. Directions for submitting advocacy requests can be found on IAHPERD's Advocacy Website.

State level support and advocacy. Members of IAHPERD's Advocacy and Executive Committees also work to maintain a consistent presence at the Indiana statehouse, especially when key issues that impact the future of health, physical education, recreation, and dance are being discussed. In the past, they have spoken at state board of education meetings, held audiences with the state superintendent, and addressed committee charged with making decisions about education in Indiana. Although not all changes in educational policy can be redirected, having a constant presence at the statehouse keeps IAHPERD's mission in the minds of Indiana policymakers. While the Advocacy Committee attempts stay abreast of the key issues impacting health and physical educators at the state level, it also relies upon assistance from IAHPERD members to act as watchdogs in pointing out issues that jeopardize the status of physical education in Indiana. Concerned members and non-members are encouraged to submit advocacy concerns via the IAHPERD Advocacy Webpage.

Annual IAHPERD Conferences. Annual IAHPERD Conferences provide members with ample opportunities to connect and dialogue about advocacy related issues. Each conference schedule also contains several sessions dedicated to discussing advocacy and members are always welcome to submit session proposals. Next year's conference will be held from November 9-11, 2011 at the Wyndham Indianapolis West Hotel in Indianapolis, IN. Registration information is available on the IAHPERD website (http://www.inahperd.org/).

The IAHPERD Journal. The IAHPERD Journal provides a forum through which the Advocacy Committee can connect with members and share information related to advocacy initiatives. Papers published by Richards and colleagues (Hemphill & Richards, 2011; Richards, Hemphill, Templin, & Blankenship, 2010) among others provide members with strategies for advocating for one's program, getting children active outside of traditional physical education classes, and providing high quality, standards based physical education. The IAHPERD Journal also provides a potential outlet for practitioners to share their experiences and create a dialogue centered on

advocacy. Those interested in submitting articles should consult the submission guidelines and email the editor, Dr. Thomas Sawyer (Thomas.Sawyer@indstate.edu).

IAHPERD Grant Opportunities. IAHPERD provides multiple opportunities for members to apply for competitive funding to assist with advocacy efforts. Funds have been allocated for advocacy grants, which are available to IAHPERD members who are interested in developing advocacy initiatives at the local level. Funds can be used for a variety of purposes and additional information can be found on the IAHPERD Advocacy Webpage. Additionally, members can apply for IAHPERD Mini Grants when they require funding to complete a project or major initiative. Although not specifically for advocacy efforts, these grants can be used to coordinate projects that promote physical education and, thus, serve an advocacy function. Similarly, funds are available to practitioners who are interested in coordinating Jump Rope and Hoops for Heart programs at the local level. Information related to the Mini Grant and Jump Rope and Hoops for Heart grants can be found on the IAHPERD Grants/Scholarship Webpage (http://www.inahperd.org/index.php?option=com_content&view=article&id=146&Itemid=218).

Conclusion and Final Thoughts

Historical, political, and economic factors continue to challenge and marginalize physical education in Indiana schools. As professionals working at the grass roots level, physical education teachers are well positioned to advance advocacy efforts in their local context through daily interactions with colleagues, administrators, parents, and students. Teaching and believing in quality physical education programming is essential to advocacy, but physical educators can also advocate by understanding and articulating the benefits of physical activity, showcasing the physical education program, speaking out for physical education, and becoming involved professionals. Beyond the actions physical educators can take in their own schools and communities, resources and support for advocacy are available in Indiana through IAHPERD. These resources can help to advance local and state level advocacy initiatives when circumstances require targeted support for physical education.

Paramount to the claim that physical education is a profession is the need to educate other of the benefits of physical activity and physical education and to defend school-based physical education in the face of marginalization and budget cuts. Unfortunately, current trends require physical educators to do more than disseminate content. They must become flag bearers of their profession by actively taking a stance to promote its vitality. IAHPERD and organizations which share its mission can promote advocacy efforts, but there is no better advocate than a physical educator who actively dispels stereotypes about physical education through both words and actions. Administrators and policymaker must be able to see quality physical education happening in Indiana schools. By doing their part on a daily basis and utilizing resources made available through IAHPERD, Indiana physical educators can make significant contributions to advancing the viability and visibility of physical education in the state.

In closing, many physical educators across the state of Indiana are already coordinating excellent programs in their classes and schools. The first step toward being an advocate just involves showing and telling others about all of the excellent work that is being done for the students and by the students. Those who currently advocate at the local level can increase their efforts by presenting at state conferences, pressuring policymakers to recognize and support the value of physical education, or joining IAHPERD's Advocacy Committee. Practitioners who are interested in becoming more involved or who want to learn more about IAHPERD's advocacy resources are reminded to contact K. Andrew Richards (karichar@purdue.edu) or to visit the IAHPERD Advocacy Website.

References

Astrand, P. O. (1992). Physical activity and fitness. *American Journal of Clinical Nutrition*, 55, 1231S-1236S.

Bobbio, A. (2009). Relation of physical activity and self-esteem. *Perceptual and Motor Skills*, 108, 549-557.

Centers for Disease Control and Prevention. (2010). *The association between school based physical activity, including physical education, and academic performance.* Atlanta, GA: Department of Health and Human Services.

Ennis, C. (2006). Curriculum: Forming and reshaping the vision of physical education in a high need, low demand world of schools. *Quest*, 58, 41-59.

Hemphill, *M.* A., & Richards, K. A. (2011). Strategies for keeping students active beyond the school day: Recommendations for physical educators. *Indiana AHPERD Journal,* 39(2), 11-16.

Indiana Department of Education. (2008). Physical education standards. Retrieved 31 May, 2011, from http://dc.doe.in.gov/Standards/AcademicStandards/PrintLibrary/docs-physed/11-5-08Physical_Education_Standards.pdf

James, P. T., Leach, R., Kalamara, E., & Shayeghi, *M.* (2001). The worldwide obesity epidemic. *Obesity*, 9, s228-233.

Le Masurier, G., & Corbin, C. B. (2006). Top 10 reasons for quality physical education. *Journal of Physical Education, Recreation and Dance*, 77(6), 44-53.

National Association for Sport and Physical Education. (2004). *Moving into the future: National standards for physical education* (2nd ed.). Reston, VA: Author.

National Association of Sport and Physical Education. (2000). *Public attitudes toward physical education.* Reston, VA: Author.

National Association of Sport and Physical Education. (2010a). Key points of a quality physical education program. Retrieved February 20, 2010, from http://www.aahperd.org/naspe/publications/teachingTools/key-points-of-QPE.cfm

National Association of Sport and Physical Education. (2010b). *Physical education is an academic subject.* Reston, VA: Author.

Richards, K. A., Hemphill, *M.* A., Templin, T. J., & Blankenship, B. T. (2010). Advocating for quality physical education in Indiana: An open letter to physical educators, school administrators, school boards, state legislators, state superintendent Dr. Tony Bennett, and parents. *Indiana AHPERD Journal,* 39(2), 11-16.

Schempp, P. G., Sparks, A. C., & Templin, T. J. (1993). The micropolitics of teacher induction. *American Educational Research Journal*, 30, 447-472.

Sparks, A., Templin, T. J., & Schempp, P. G. (1993). Exploring dimensions in marginality: Reflecting on the life histories of physical education teachers. *Journal of Teaching in Physical Education*, 12, 313-328.

Templin, T. J. (1989). Running on ice: A case study of the influence of workplace conditions on a seconday school physical education teacher. In T. J. Templin & P. G. Schempp (Eds.), *Socialization into physical education: Learning to teach* (pp. 1-11). Indianapolis: Benchmark Press.

US Department of Education. (2002). *No Child Left Behind Act of 2001*. Washington, DC: Author.

US Department of Health and Human Services. (1996). *Physical activity and health: a report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.Risk

Indiana AHPERD Law Review

Edited by
Thomas H. Sawyer, Ed.D., NAS Fellow
thomas.sawyer@indstate.edu

Guest Author
Tony Gimbert, M.S.
Indiana State University
tony.gimbert@indstate.edu

FMLA Eligibility and the Part-Time Coach

GARY COMMUNITY SCHOOL CORP. v. POWELL
881 N.E.2d 57, 2008

Introduction

Full-time teacher and part-time football coach brought Family and Medical Leave Act (FMLA) action against Gary Community School Corporation for not being reinstated in his coaching position after returning from a medical leave of absence.

Facts

In 2001, Powell worked for Lew Wallace High School (the School) as a full-time math teacher, a night school teacher, a head football coach, and an assistant basketball coach. At that time, the School's coaching positions were part-time, year-to-year positions requiring less than 1,250 work hours per year. Powell had a contract with Gary governing his part-time employment as a football coach that was separate from the contract governing his full-time employment as a math teacher.

On July 31, 2001, on the second day of football practice, Powell developed a blood clot in his leg that required hospitalization. Powell was away from work for nearly three weeks, returning on August 27, 2001. Unfortunately, Powell reinjured himself a few days later when he broke up a fight on the football field. Powell again had to be hospitalized and missed another four weeks of work, returning on October 1, 2001. Upon returning to work, Powell was restored to his full-time job as a math teacher but was not restored to his part-time job as a football coach.

Issue

Powell filed a complaint against Gary, alleging that its failure to restore him to his part-time job as a football coach violated the FMLA and seeking damages pursuant to the alleged violation.

Judgement

It is apparent that Powell worked in two separate, independent, discrete capacities for Gary. His coaching and teaching positions were unrelated. Keeping in mind the purpose of the FMLA, we cannot conclude that Powell had a reasonable expectation of FMLA coverage for his part-time job as a football coach. And given the way that Gary chose to structure its employees, we find that Gary had a legitimate expectation that the FMLA would not, in fact, extend to Gary's part-time employees, even if those employees also held other, separate full-time positions with the school. Because his job as head football coach was undisputedly part-time and did not require more than 1,250 hours of work per year, we conclude that Powell was not an "eligible employee" such that the FMLA applied to his coaching job.

Risk Management Recommendations

It is important for athletic directors and school corporations to carefully consider the following when developing appropriate personnel policies and procedures regarding Family and Medical Leave:

1. The policy applies only to full-time employees (more than 1,250 hours of work per year), and have worked for the corporations for at least 12 months.
2. Teaching and coaching positions and contracts should be considered entirely separate and independent of each other with different hiring criteria and termination processes.
3. Teachers and coaches should report to different supervisors.
4. Employer cannot interfere with, restrain, or deny the FMLA entitlement.

Defining Qualified Disabled Athletes

BADGETT & BADGETT
v.
ALABAMA HIGH SCHOOL ATHLETIC ASSOCIATION
2007 WL 2461928 (N.D.Ala.), May 3, 2007

Introduction

Plaintiff Mallerie Badgett is a student at Oxford High School in Alabama. Miss Badgett has cerebral palsy and uses a wheelchair for mobility. Miss Badgett is an active member of Oxford High's track and field team and holds nine Junior National Records for girls with cerebral palsy.

Facts

In January 2006, the AHSAA began efforts to determine how to encourage and accommodate the participation of disabled student athletes in the sports programs. Further, in July 2006, the AHSAA voted to partner with the American Association of Adapted Sports Programs (AAASP) to assist it with implementing athletic programming for student athletes with physical disabilities.

Prior to the commencement of the 2007 track and field season, Miss Badgett and Oxford High contacted the AHSAA concerning her participation in track and field events. The AHSAA decided to implement the first phase of its new program ("Phase I") in response to Miss Badgett's request allowing wheelchair athletes would compete in a wheelchair division separate from the able-bodied division.

For the 2007 track and field season, Miss Badgett is and has been the only competitor in the wheelchair division in the state. The AHSAA plans, however, to allow Miss Badgett to participate in her section qualifying meet should she so desire. Moreover, although the AHSAA originally limited Miss Badgett to certain specified events, the AHSAA has decided, in response to Miss Badgett's specific request, to allow her to compete in four track and field events of her choosing in the wheelchair division during the state track and field championship.

Miss Badgett, however, does not want to compete in a separate wheelchair division because, among other reasons, she believes that competing alone makes her an "exhibition" rather than a part of her team and will affect her ability to receive college scholarships and other benefits.

Issue

The primary controversy before the court is whether the ADA and the Rehabilitation Act require Defendants to accommodate Miss Badgett's requests.

Judgement

In light of the foregoing, the court finds no violation of the Rehabilitation Act of 1973 or Title II of the Americans with Disabilities Act. To the extent the Defendants were required to extend a reasonable modification to Miss Badgett, they have met that obligation by establishing the separate wheelchair division for track and field.

Risk Management Recommendations

It is important for athletic directors and state high school associations to carefully consider the following when developing appropriate policies and procedures regarding disabled student-athletes:

1. Defining what is a qualified student-athlete with a disability,
2. Establishing reasonable modifications in a sport such as
   a. separate divisions for disabled student-athletes that also will count in the team overall points (e.g., wheelchair division),
   b. using a visual signal in addition to the traditional starting pistol,
3. Developing a policy that allows for disabled student-athletes to be eligible to win a state championship, and
4. Ensuring that reasonable modifications will be made in policies, practices, or procedures.

IAHPERD 2011 State Conference and Exposition
Registration Form
November 9-11, 2011
Wyndham West Indianapolis

I-nvigorate
A-ctive
H-ealthy
P-repared
E-nergized
R-elevant

The D-oorway to the Future of IAHPERD

Pre-Registration Deadline: postmarked by October 28
Online registration at www.inahperd.org

Membership is ☐ new in 2011 ☐ renewal in 2011

Membership Type ☐ professional ☐ student ☐ retiree

I am a ☐ Jump Rope for Heart Coordinator ☐ Hoops for Heart Coordinator

PRINT First Name MI Last name

Home Phone Work Phone

Preferred Mailing Address City State Zip County

Preferred Email Address Summer Email Address (if different)

School/Company Name School Corporation

Employment Level ☐ Elementary School ☐ Junior High/Middle School ☐ High School ☐ College/University ☐ Community Fitness ☐ Public Health ☐ Recreation/Parks ☐ Business ☐ Student ☐ Other _____

Primary Interests (select up to three) ☐ Health ☐ Physical Education ☐ Recreation ☐ Dance ☐ Adapted Physical Education ☐ Athletic Training ☐ Coaching ☐ Administration ☐ Professional Development ☐ Other _____

Leadership Interest ☐Advocacy ☐Council Member ☐Student Group ☐Grants ☐Jump Rope for Heart Coordinator ☐Hoops for Heart Coordinator ☐Regional Council Member

Event Package	Professional Member		Professional Non-Member		Student Member		Student Non-Member		Amount
	Early Bird Fees	Onsite Fees	Early Bird Fees	Onsite Fees	Early Bird Fees	Onsite Fees	Early Bird Fees	Onsite Fees	
JOIN IAPHERD TODAY – Membership for 2011	$40	$40	$40	$40	$20	$20	$20	$20	
2 Day Conference	$85	$110	$130	$165	$25	$50	$40	$75	
1 Day Conference I will be attending _____Thursday _____ Friday	$50	$65	$110	$125	$20	$30	$35	$65	
Retired Professional	$0	$0	n/a	n/a	n/a	n/a	n/a	n/a	
Spouse/Significant Other NAME:	$50	$50	$50	$50	n/a	n/a	n/a	n/a	
JRHH Lunch and Awards—Thursday, November 10 Will be reimbursed when you pick up your box lunch	$25	n/a	$25	n/a	n/a	n/a	n/a	n/a	
Sports Management Lunch—Friday, November 11	$25	n/a	$25	n/a	$25	n/a	$25	n/a	
PRESENTER PRE-REGISTRATION: POSTMARKED BY OCTOBER 28							**TOTAL**		

Online registrations will not be accepted after midnight October 28, or if mailed, must be postmarked October 28. After October 28, those wishing to register for the state conference are asked to register onsite beginning 7:30am on Thursday, November 10 at the conference registration desk at the Wyndham West Indianapolis.

Cancellations must be made in writing to IAHPERD Executive Director and postmarked no later than November 1. All cancellations are subject to a $10 processing fee. Refunds will be issued 6-8 weeks after the conference. No cancellations will be accepted or refunds issued on requests made after November 1.

Complete and mail form with fees to:
IAHPERD
ATTN: Karen Hatch, Executive Director
2007 Wilno Drive
Marion, IN 46952

Make check payable to IAHPERD. Note: we do NOT accept school or corporate purchase orders.

One registration per form please.

Questions? Call Karen Hatch at 765-664-8319.

Guidelines for Authors

This journal is published in May, September, and February by the Indiana Association for Health, Physical Education, Recreation, and Dance. Articles that share opinions and ideas, as well as those based on serious scholarly inquiry are welcomed and encouraged. Each article scholarly article is reviewed by the editor and at least two reviewers who are selected on the basis of areas of interest and qualifications in relation to the content of the article.

Preparing Manuscript

Manuscripts are to conform to the Publication Manual of the American Psychological Association (APA; 6th ed.) style. To facilitate the review process, the author(s) should use double-spaced type and include line numbers as well as page numbers. Papers must not exceed a total of 28 pages including references, charts, tables, figures, and photographs. There should be an abstract not to exceed 500 words. Further, all charts, tables, figures, and photographs will be after the references. Papers deviating from the recommended format will not be considered until they are revised.

Electronic Submission

Electronic submission of manuscripts is required at thomas.sawyer@indstate.edu . The manuscript order is: (1) blind title page, (2) abstract, (3) key words, (4) text, (5) references, (6) author notes, (7) footnotes, (8) charts, (9) tables, (10) figure captions, and (11) figures. The cover letter will be a separate file. Including author(s) name and affiliation and contact information of corresonding author.

Send it in
...to the Editor

A new idea that you have penned,
Share it with a Indiana AHPERD friend.
On the Journal pages, let it end.
We sure do want it... send it in!
It may be an article you did write
In sheer frustraton one weary night.
But, someone else it may excite.
...Send it in.
Is it a cartoon that you have drawn?
Did you compose a unique song?
Could our whole profession sing along?
...Well, send it in.
Some folks are inspired by poetry
And works of art let others see
The inner thoughts of you and me.
Please, send it in.
Then, there are works that scholars do.
Great research... we need that, too.
But, you know we must depend on YOU
To send it in.
Won't you share with us your thought
That we all just may be taught?
My, what changes could be wrought
If you'd just send it in.

Tom Sawyer
Indiana AHPERD Journal Editor

Cover Letter

The cover letter must include all contact information for the corresponding author, and employers of the remaining authors. The following statements must be included in the cover letter:

· "This manuscript represents results of original work that have not been published elsewhere (except as an abstract in conference proceedings)."

· "This manuscript has not and will not be submitted for publication elsewhere until a decision is made regarding its acceptability for publication in the Indiana AHPERD Journal."

· "This scholarly inquiry is not part of a larger study."

· "This manuscript has not been previously published or submitted for publication elsewhere, either in identical or modified form."

Authors

List multiple authors in the order of proportionate work completed. Also indicate research reports supported by grants and contracts. Include biographical information on all authors (title, department, institution or company, and full address).

Authors's Statement

❑ The author must provide a signed statement certifying that the article has not previously been published or submitted for publication elsewhere either in identical or modified form.

Deadlines Journal

❑ Spring Issue – March 1
❑ Fall Issue – July 1
❑ Winter Issue – December 1

Newsletter

❑ Spring Issue – Feb. 15
❑ Fall Issue – Sept. 15

Leadership Opportunities on Councils

FUNCTION. The duties and responsibilities of the Program and Regional Councils are to:

1. Work closely with the Program Director or Regional Coordinator to promote the special program area.
2. Attend annual IAHPERD Leadership Conference. (Hotel and meals paid for by the Association.)
3. Solicit programming for the State Conference or Regional Workshops.
4. Serve as host to greet and direct presenters during the conference.
5. Serve as presider for the various programs in your special area. Support includes introducing presenter, assisting during the presentation (distribute handouts), and providing presenter with the special gift from the Association.
6. Make nominations to the Awards Committee chair for Teacher of the Year and Association awards.

PROGRAM AREAS. The various program areas include:

1. Adapted Physical Education
2. Aquatics
3. Council for Future Professionals
4. Dance
5. Fitness
6. Health
7. Higher Education/ Research
8. Jump Rope and Hoops for Heart
9. Physical Education: Elementary
10. Physical Education: Middle School
11. Physical Education: Secondary
12. Recreation
13. Sport
14. Sport Management
15. Technology

INTERESTED? To apply for a leadership position on a council, send an email of interest to Dr. Mark Urtel, Nominating Committee Chair, at murtel1@iupui.edu. For additional information, go to the IAHPERD website at www.Indiana-ahperd.org, click on About, Constitution, Operating Codes, and scroll down to the leadership position of interest.

INDIANA AHPERD
APPLICATION FOR MEMBERSHIP

(Please Print/Type)

Last Name _____ First _____ M.I. _____

Address _____
Street

_____
City *State* *Zip*

_____
County

Telephone: Area Code (_____)_____ E-mail _____

Member Class: ☐ Professional $40.00 ☐ Student $20.00
(Undergraduate or Full-Time Graduate Student)

☐ New ☐ Renewal

Make check payable to: Indiana AHPERD.
Send to: Karen Hatch, 2007 Wilno Drive, Marion, IN 46952

MEMBERSHIP EXPIRES 1 YEAR FROM DATE DUES PAYMENT IS RECEIVED.

Your JOURNAL cannot be forwarded.
If a change of address occurs, please notify:

Karen Hatch
2007 Wilno Drive
Marion, IN 46952

OPPORTUNITY FOR INVOLVEMENT

Involvement is the key word to making a contribution to your professional association. The IAHPERD provides an opportunity for involvement through the choices below and we encourage each of you to become active participants by serving on a committee or by holding an office. Please, check any position listed below that interests you.

HELP NEEDED:

_____ Would you be willing to become involved?
_____ District level
_____ State Level
_____ Committee Involvement
_____ State Office
_____ Regional Leadership

Karen Hatch
Executive Director, IAHPERD
2007 Wilno Drive
Marion, IN 46952
Phone: 765-664-8319
email: hatch@comteck.com

IAHPERD

Indiana Association for Health, Physical Education, Recreation, and Dance

www.inahperd.org