Do School Administrators Know What Practices are Appropriate in Physical Education?
學校管理層知道什麼是適當的體育嗎？

David BARNEY  Keven A. PRUSAK
Brigham Young University, Utah, U.S.A.

Abstract
The purpose of this study was to investigate school administrators’ knowledge of appropriate instructional practices in physical education. For this study 130 k-12 school administrators from two states in the United States were surveyed regarding their knowledge of appropriate instructional practices in physical education. University Institutional Review Board granted approval to conduct this study. Surveys were sent electronically to the school administrators to take. At the completion of the survey the school administrators were able to click a submit button and have the surveys returned to the researchers. It was found that school administrators identified dodge ball, relay races and elimination tag as an appropriate instructional practice. Also, full-sided games (30 students divided into two teams) were appropriate for students to participate in. These instructional practices are considered inappropriate for students to participate in. The implications of this study are to inform school administrators what practices are appropriate and inappropriate. It is hoped that physical educators and school administrators will work together to see that appropriate instructional practices are taught in physical education, thus benefiting students to become competent in their participation in physical activity.

Keywords: Appropriate Instructional Practices, School Administrators, Physical Education

Introduction
The National Association of Sport and Physical Education (NASPE) have produced a number of documents to aid physical educators at all levels for the purpose of improving the product of physical education in the public schools. Three documents that fit this purpose is the Appropriate Instructional Practice Guidelines for Elementary School Physical Education (2009), Appropriate Instructional Practice Guidelines for Middle School Physical Education (2009) and Appropriate Instructional Guidelines for High School Physical Education (2009). The main purposes of these three documents are to “address key aspects of instructional strategies and practices that are essential to delivery of quality physical education to children, adolescents and young adults” (NASPE, 2009). Another purpose of these documents is to provide specific guidelines that identify practices that are in the best interest of students (pg. 3).

With these purposes established in these documents, research has been conducted with a variety of populations to ascertain the knowledge regarding appropriate instructional practices in physical education.
For example, Barney & Strand (2008) investigated high school student’s knowledge of appropriate instructional practices in physical education. Finding that high school students felt it was appropriate for students to pick teams in front of the whole class and dressing out for class should be part of a students grade. Another appropriate instructional practices study looked at parent’s knowledge of appropriate instructional practices in elementary physical education. For this study it was found that parent’s felt teachers should use large groups in which participation is based on individual competitiveness in class activities, that such activities as relays, dodge ball and elimination tag should be used for students to participate in, these being inappropriate instructional practices in elementary physical education (Barney & Pleban, 2010). One last population investigating appropriate instructional practices was physical education teacher education (PETE) majors. For this population the PETE majors felt that picking teams in front of the whole class was appropriate and that general feedback is all that is needed for students regarding their performance in class (Barney, Christenson & Pleban, 2012). These studies show that these populations investigated have definite opinions and beliefs of how physical education is taught to students in physical education class. One group that has not been studied is school administrators (principals and vice-principals). One study investigated how principals view and perceive the physical education programs in the public schools in New York City (Zeng, 2011). The principals in this study filled out a questionnaire and were interviewed. Some of the key findings from the school administrators were, a) having daily physical education class is the key to prevent kids from becoming overweight, b) physical education class is needed because there is a connection between the mind and body, and c) overcrowded physical education classes and unmotivated students are the main issues in the schools that participated in this study. The researcher concluded that school principals feel physical education is important, and that the teachers along with principals need to work with parents to solve the dilemmas facing physical education in the public schools. Another conclusion from this study was that principals can play a big part in supporting the physical education teachers in the schools in improving and strengthening physical education for students.

School Administrators obviously play a big part in the schools in many ways. For example, they are responsible for instructional improvement, they organize activities, tasks and people at the school, and they encourage change in school programs that benefit students, mainly the curriculum (Williams, 2000). As Ratliffe (1988) has said school administrators are very busy and many demands are put upon them. As busy as a school administrator may be they exert direct and indirect influences regarding many aspects in the school, one of those aspects being the curriculum. This may also apply to physical education. Because of this direct or indirect influence school administrator exert on curriculum or programs in the school, the purpose of this study was to investigate school administrator’s knowledge of appropriate instructional practices in physical education.

Methods

Participants

One hundred and thirty k-12 school administrators (79 Males & 51 females; 55 at elementary schools, 12 at middle schools, 24 junior high schools, and 39 at high schools) from four school districts from two states in the United States participated in the study. The university Institutional Review Board (IRB) granted approval to conduct this study and consent was obtained as well as from the school administrators that participated in this study. For this study, 274 email invitations to participate in this study were sent out to the school administrators. These school districts are considered urban in nature. The average population for each district is approximately 70,000 to 100,000 people (USA school info, 2014). Survey response rate was 47%.

Instrument

For this study the researchers utilized survey questions used in previous studies dealing with appropriate instructional practices (Strand, Barney, & DeFries-Evans, 2008; Barney & Strand, 2008). The survey had a total of 36 statements, focusing on six general areas. They were 1) Curricular Decisions, 2) Health-Related Fitness, 3) Assessment, 4) Active Participation, 5) Instructional Strategies and 6) Professionalism. Seven statements refer to curricular decisions, four statements for health-related fitness, five statements for active participation, two statements for professionalism, and 12 statements for instructional strategies. Additionally, as part of the survey the participants were asked to respond to questions after each survey question. The answer scale consists of Agree and Disagree. The purpose for
utilizing a dichotomous scale rather than a Likert scale was these statements were either deemed appropriate or inappropriate instructional practices in the AIP documents.

**Procedures**

For this study, the researchers had the survey available on-line through Qualtrics, a survey company. Qualtrics is a survey company that allowed the participants of this study to fill out the survey from their computer. The researchers emailed school administrators in the four school districts and requested their participation. For those school administrators that participated in the study, they would click on a link in an email, which allowed them to answer the survey statements. At the completion of the survey the participants would click on a ‘submit’ button. The survey would then be sent to a Qualtrics database. The researchers could then access the data from the Qualtrics database for analysis.

**Data Analysis**

The data were analyzed using descriptive statistics in the Statistical Package for the Social Science (SPSS) 21.0 program. Percentages were used to reflect the school administrator’s responses for each item being analyzed. The other method of data analysis was analyzing school administrator’s responses to the questions from the survey. The researchers read and re-read the data from the incorrectly answered statements until common themes became evident (O’Sullivan & Tsanaridou, 1992).

**Results**

As shown in Table 1, data indicate that the school administrators correctly identified 30 of the 36 statements. Conversely, for six of the statements a majority of the school administrators selected the incorrect response. Results pertinent to each of the six general areas 1) Assessment, 2) Health-Related Fitness, 3) Curricular Decisions and 5) Professionalism are further discussed.

**Assessment**

Question 13 indicated that school administrators incorrectly answered this statement. Statement 13 states, It is appropriate that attendance and effort should be counted as a portion of a students’ grade. The data showed that 86% of the male and 82% female school administrators and 86% of all the school administrators incorrectly answered this statement.

The qualitative data for this assessment statement were, “I do strongly agree with this practice in physical education.” Another school administrator stated, “In our school, a missed assignment in physical education must be made up, even if the student has been ill or is out for a school related field trip.” A couple statements that had contrary views were, “In no way should they (attendance and effort) be part of a students grade.” One other school administrator stated, “In our state, it would be considered illegal to do such a thing.”

**Health-Related Fitness**

Data from survey statements regarding health-related fitness found two statements that were incorrectly answered by the school administrators. Statement six states, It is appropriate for an entire physical education class to participate in large group militaristic calisthenics in order to achieve fitness goals. The data showed that 53% of the male school administrators incorrectly answered this statement. When looking at school administrator’s comments for this statement they stated, “This question leads me to believe that I am being asked if physical education class in junior high should be conducted like boot camp at the base. Of course not. However organized and repetitious exercise routines are sometimes easier to master.” Another school administrator briefly stated, “Appropriate but not required.”

The second statement that was incorrectly answered by school administrators was statement eight. It states, it is appropriate that schools, district or states use fitness tests for the purpose of identifying students to receive awards. Both male (67%) and female (76%) school administrators incorrectly answered this statement. For all of the school administrators 71% incorrectly answered the same statement. School administrators statements for statement eight were, “Schools often award their top students in all subjects for high achievement. Why not do it for physical achievement.” In the same tone, another school administrator stated, “Students receive awards for academic achievement, and should be awarded for physical achievement as well.”

**Curricular Decisions**

The data from the curricular decisions statements revealed that one survey statement had been incorrectly answered (15). Statement 15 states, it is appropriate to play activities such as relay games, dodge ball, and
elimination tag. For this statement, 75% of the school administrators felt it was appropriate for students to participate in these activities. Also, 78% of male and 71% of female school administrators incorrectly identified this statement. When looking at the data from this statement, a majority of school administrators feel these activities are appropriate. Yet, when analyzing the school administrator’s comments they are mixed. For example, some school administrators stated, “On occasion”, “Yes, if the games supports curricular goals”, “if done correctly” and “if used with soft balls that don’t hurt.” Other school administrators stated, “dodge ball is not allowed in our district”, and “it’s (dodge ball) not my favorite.”

Instructional Strategies

For the 12 Instructional Strategies statements on the survey, school administrators correctly identified 11 of the 12 statements. The one survey statement incorrectly identified was statement 21. Which states, Full-sided or large sided teams (e.g., splitting 30 students into two teams of 15 that play volleyball) are appropriate in physical education. The data revealed that 54% of the total population of school administrators felt this practice was appropriate. Fifty-one percent of the male and 57% of the female school administrators felt this was appropriate. Interestingly, the previous statement (20) on the survey, which states, Teachers should organize small-sided games (e.g., 2.3 per team) that allow numerous practice attempts and learning, was correctly answered by a large majority of school administrators (males 92%; females 94% and 93% from the total population). Some of the school administrators comments for this survey statement were, “logistically it does happen as PE classes tend to be large”, “more opportunity for each student to participate”, and “As an occasional activity but not as a rule.”

Professionalism

And finally, the data regarding Professionalism had one statement incorrectly answered. Statement 34 dealt with the PE teacher being recognized as the “gym teacher” or “coach” in school. From the data 55% of the school administrators felt it was appropriate to address the PE teacher as “gym teacher” or “coach” around school. Male (52%) and female (61%) school administrators felt this was appropriate form of professionalism to show towards the PE teacher. For this statement school administrators stated, “Why not.

Coach is a very respectable and honorable title”, “Teacher first, but not appropriate”, and “It is only negative or positive as we make it.”

Discussion

The purpose of this study was to investigate school administrator’s knowledge of appropriate instructional practices in physical education. Findings indicate that school administrators identified a majority (30 of the 36 statements) of the survey statements correctly. Yet, from the data, there are some practices school administrators incorrectly identified and should be addressed.

Assessment

When reviewing the statements dealing with assessment, the school administrators felt that a portion of a students’ grade should be based on attendance to class and effort (statement 13). For many years students have passed their physical education class because they ‘just showed-up’. The results from this statement point to a certain mindset that has been established in the minds of many. This mindset revealed itself with the school administrator’s comments, when such statements like “I do strongly agree with this principle in physical education” and “if the student misses class they can make up the missed work.” These types of statements show that there are still some school administrators that feel a student just needs to show up and try in physical education class. With this practice of passing a student for ‘showing up’ and ‘trying’, the students receive a passing grade. This type of practice has not put PE in a favorable light with parents and school administrators. This type of assessment has created questions in the minds of students, parents, and school administrators regarding the importance and legitimacy of physical education. Statement 12 on the survey indicated other methods of assessment. For example, it states that there are other forms of assessment (checklists, self and peer assessments, and portfolios) in physical education that can be used to assess a students learning in physical education. These forms of assessment are proper and appropriate to use to assess a students’ learning. Yet, the data for statement 13 indicate that school administrators feel that attendance and effort should be factors in assessing students’ in physical education.
Health-Related Fitness

School administrators felt “it is appropriate for an entire physical education class to participate in large group militaristic calisthenics in order to achieve fitness goals.” This method of exercise could be useful for a class to warm-up before class activities, yet is not sufficient to reach fitness goals. Pangrazi & Beighle (2013) have stated that each student is different from each other. Because every student is different from their classmates, physical educators need to create opportunities and activities that will benefit each student. This also applies to students’ fitness activities and goals. Through proper planning and preparation, a physical educator can provide each student with fitness activities to help them reach the individuals goals (NASPE, 2009). The survey statement alludes to achieving fitness goals. Physical educators need to stress to students that goals need to be set, that time is the needed element to reach and achieve fitness goals. It is hoped that as students embark in the process of reaching fitness goals, that habits and positive attitudes will be established that will last a lifetime.

Another perspective the school administrators gave to this statement was the reality of large numbers of students in PE class and its affect on fitness. Some of their thoughts regarding class size were, “It is unfortunate that PE classes are overloaded with students. The average high school PE class is much larger than a regular English class, generally speaking. Because of the large numbers, I believe that PE teachers have had to organize in a militaristic fashion. I disagree with this organization but at the same time realize the difficulties of dealing with large class sizes.” Another school administrator stated, “It’s not the preferred instructional method, but because of large classes this is one strategy teachers employ.” These types of responses illustrate the hard reality of physical education in the public schools. From these school administrators’ statements, they are of the opinion that militaristic calisthenics is not the best method of students’ achieving fitness goals, yet, because of class size this method of fitness is a method to be used to manage large class sizes.

Curricular Decisions

One item school administrators incorrectly identified dealing with curricular decisions was statement 15, which states, it is appropriate to play activities such as relay games, dodge ball, and elimination tag.” Of the three activities mentioned in this statement, dodge ball has received the most attention. For many people dodge ball was probably the activity or game that stands out in their mind regarding their physical education experience (Barney & Pleban, 2010). In previous appropriate instructional practices studies, the following populations found dodge ball appropriate instructional practice in physical education. They were parents (Barney & Pleban, 2010), physical education majors (Barney & Christenson, 2013), middle grade students (Barney, Prusak & Strand, 2013) and elementary aged students (Barney & Christenson, 2014). Dodge ball has been in the media in all forms. Movies have glamorized dodge ball (Cooper, Dobkins, & Gillespie, 2007), printed media has defended dodge ball in physical education class as a right of passage for young men (Reilly, 2001). The data has indicated that some school administrators felt that dodge ball was conditionally appropriate, by making such statements as, “dodge ball is fine to play, if done correctly”, “if it is played with soft balls”, and “dodge ball could be played occasionally, not all the time.” The data from this study has shown that a majority of school administrators feel that dodge ball is an appropriate activity for students to participate in. Interestingly, many states have banned dodge ball from the public schools (Bazar, 2006). As one school administrator stated, “We are not allowed to play dodge ball in our district, or any game that includes targeting/throwing things at other students.” Because of laws passed the banning of dodge ball in the public schools, it would be wise for school administrators to know if dodge ball is being played in their schools. With the banning of dodge ball, those that have passed laws banning the participation seem to understand the negatives effects it can have with students. It needs to be emphasized that dodge ball in a physical education class is not an appropriate instructional practice.

Instructional Strategies

When analyzing the data from the instructional strategies, one statement, statement 21 was incorrectly answered. It states, Full-sided or large sided teams (e.g., splitting 30 students into two teams of 15 that play volleyball) are appropriate in physical education. When
these types of games/activities are implemented with students, there tends to be standing around and very little student involvement, thus resulting in a greater chance for a lack of activity and inappropriate behavior from students (Barney & Pleban, 2010). Another result of having students partake in these types of activities is a lack of student learning. Because there is usually one ball or one piece of equipment, students are not interacting with the equipment, thus resulting in no student learning.

The researchers found it interesting that the school administrators correctly identified statement 20, which states, “Teachers should organize small-sized teams (e.g. 2-3 per team) that allow numerous practice attempts and learning.” Yet, school administrators incorrectly answer the following statement (21) dealing with the identical concept as stated in statement 20.

Professionalism

The one statement that was incorrectly answered, dealt with how the physical education teacher is recognized in the school as a “gym teacher” or as “coach”. The researchers feel this statement deals with the lack of respect the physical education teacher is given in the school by their administrators. The school administrator’s comments to this statement reinforce this lack of respect given to physical education teachers. For example, some of the school administrators stated, “Why not call them that”, “I don’t think it is offensive”, and “it is only negative or positive as we make it.” This statement has nothing to do with instructional practices, yet it can clearly affect a physical education program at any level. By having the school administrators respect toward the physical education program, it will send a message to the staff, faculty, students and parents of the importance of physical education in a students’ education.

Conclusion

It is encouraging that the school administrators in this study successfully identified 30 of the 36 survey statements dealing with appropriate instructional practices in physical education. It is a positive sign when school administrators successfully identify that exercise should be taught as a positive learning experience, that exercise should not be used as punishment, that outside of class assignments can be used to assist student learn concepts taught in physical education class, and that physical educators can change the physical activity cultural in the school and community among other practices in physical education (Strand, Skarud, & DeBlauw, 2001). The results from this study show that physical education has to continue to educate and emphasize the positive that is taking place in the gymnasium and on the playing field. Revegno (1996) has suggested that physical educators serve on school committees. This gives the physical educator an opportunity to interact with other teachers, school administrators and in many cases with parents. As the physical educator serves on these committees, there will be opportunities to present what is taking place in the gym or on the playing field. Also, physical educators should make it a point to schedule an appointment with school administrators at the end of the school year. During this appointment the physical educator can promote their program to the school administrators by reviewing the highlights that took place in the gymnasium and playing fields. The purpose of this study was not to ‘call out’, ‘embarrass’ school administrators, but to show them that some instructional practices that have been used in physical education is not to be used on students. But for physical educators and school administrators to work together in giving support and then carrying out appropriate instructional practices for the students. Probably more importantly, the physical educator can educate the school administrators on these appropriate instructional practices in physical education. These are just a couple suggestions physical educators can use to help school administrators to better understand the importance and value physical education has in a student education.

Implications for School Health

The results of this study revealed that school administrators feel that dodge ball and having students participate in games that have a high numbers on each side. Physical educators have an excellent opportunity to educate their administrators in regards to what is appropriate to teach students. The practices the students are exposed to throughout their physical education experience can help lead to a life of physical activity, thus creating contributing members of today’s society. By having school administrators on the ‘same page’ as the physical educators in the school, can only help to promote physical activity to the students.
Table 1. Results Regarding Appropriate Instructional Practice from School Administrators.

<table>
<thead>
<tr>
<th>Question</th>
<th>Total Administrators</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is appropriate that a physical education curriculum include a variety of skills and concepts</td>
<td>96% 4%</td>
<td>95% 5%</td>
<td>98% 2%</td>
</tr>
<tr>
<td>2. It is appropriate for a teacher to design physical education activities with both physical and cognitive development of students' in mind.</td>
<td>99% 1%</td>
<td>100% 0%</td>
<td>98% 2%</td>
</tr>
<tr>
<td>3. It is appropriate that learning activities in physical education be connected to those in other subject areas.</td>
<td>94% 6%</td>
<td>91% 9%</td>
<td>98% 2%</td>
</tr>
<tr>
<td>4. Students may be permitted to use harassing remarks, physically harmful activities, and behavior that is hurtful to others.</td>
<td>1% 99%</td>
<td>0% 100%</td>
<td>2% 98%</td>
</tr>
<tr>
<td>5. All students should be required to do the same fitness activities regardless of individual fitness levels and needs.</td>
<td>19% 81%</td>
<td>23% 77%</td>
<td>14% 86%</td>
</tr>
<tr>
<td>6. It is appropriate for an entire physical education class to participate in large group militaristic calisthenics in order to achieve fitness goals.</td>
<td>45% 55%</td>
<td>53% 47%</td>
<td>33% 67%</td>
</tr>
<tr>
<td>7. Teachers should use fitness assessments to help students understand, enjoy, improve and maintain their physical fitness and well-being.</td>
<td>91% 9%</td>
<td>94% 6%</td>
<td>88% 12%</td>
</tr>
<tr>
<td>8. It is appropriate that schools, districts or state use fitness tests for the purpose of identifying students to receive awards.</td>
<td>71% 29%</td>
<td>67% 33%</td>
<td>76% 24%</td>
</tr>
<tr>
<td>9. Students should be taught the purpose of correct procedures and for different exercise categories.</td>
<td>100% 0%</td>
<td>100% 0%</td>
<td>100% 0%</td>
</tr>
<tr>
<td>10. Exercise should be taught as a positive physical activity learning experience.</td>
<td>100% 0%</td>
<td>100% 0%</td>
<td>100% 0%</td>
</tr>
</tbody>
</table>
11. Exercise may be used as punishment for misbehavior and/or lack of participation.  
13% 87%  

12. Many different forms of assessment including checklists, self and peer assessments, portfolios, and student journals should be used in physical education.  
90% 10%  

13. It is appropriate that attendance and effort should be counted as a portion of a students’ grade.  
87% 13%  

14. Physical educators should be concerned only with assessing motor skills and fitness and not worry about cognitive or affective learning outcomes.  
4% 96%  

15. It is appropriate to play activities such as relay games, dodge ball, and elimination tag.  
75% 25%  

16. Teachers should modify the rules, regulations, equipment, and playing space to facilitate student learning.  
97% 3%  

17. Official adult rules of sports should govern the activities in physical education classes.  
32% 68%  

18. It is appropriate to form groups or teams by providing captains’ then publicly selecting one child at a time.  
7% 93%  

19. Group/teams may be formed by putting ‘boys against girls’.  
24% 76%  

20. Teachers should organize small-sided games, (e.g. 2-3 per team) that allow numerous practice attempts and learning.  
93% 7%  

21. Full-sided or large-sided teams (e.g., splitting 30 students into two teams of 15 that play volleyball) are appropriate in physical education.  
54% 46%  

22. Teachers should plan activities that emphasize self-improvement, participation, fair play, and cooperation.  
100% 0%
23. Regardless of skill level, it is appropriate to teach participants to compete positively and constructively.

24. It is appropriate that teacher's use strategies that more favorably compare one child's or one's team performance against others.

25. It is unreasonable to expect a physical education teacher to give verbal and non-verbal feedback to students in PE.

26. Teachers should introduce and expose students to exercise technology such as pedometers, heart rate monitors and current software programs.

27. Physical education learning experiences should be designed to help and encourage students to communicate with others, accept individual strengths and differences, and cooperate to solve problems.

28. Discipline within the class should be fair, consistent and encourage students to be responsible for their own behavior.

29. Teachers should provide students with experiences that require students to apply, analyze, and evaluate various concepts related to motor skills.

30. It is appropriate for teachers to help with a students' fitness areas for weaknesses and plan appropriate activities to improve student fitness.

31. Outside of class assignments should give students a chance to practice and apply information introduced in physical education class are appropriate.
32. As a part of the overall school, teachers should be encouraged to promote and incorporate other curriculum areas, such as math, history, music, and science at the expense of PE specific content.

33. It is appropriate that a PE teacher attend professional development activities and stay current.

34. It is appropriate that PE teacher be recognized as the ‘gym teacher’ or ‘coach’ in the school.

35. It is appropriate for a PE teacher to inform parents and community about PE programs goals and objectives.

36. It is appropriate for a PE teacher to attempt to change the physical activity cultural of the school and community.

<table>
<thead>
<tr>
<th></th>
<th>42%</th>
<th>58%</th>
<th>46%</th>
<th>64%</th>
<th>37%</th>
<th>63%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td>45%</td>
<td>52%</td>
<td>48%</td>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>98%</td>
<td>2%</td>
<td>100%</td>
<td>0%</td>
<td>96%</td>
<td>4%</td>
</tr>
</tbody>
</table>

|   | 100% | 0% | 100% | 0% | 100% | 0% |

Reference


National Association for Sport and Physical Education. Appropriate instructional practice guidelines for middle school physical education. Reston, VA: Author.


Correspondence:

David Barney, Ed.D.
Associate Professor
Brigham Young University
249 G Smith Field House
Provo, Utah 84602
Phone: (801) 422-6477
Phone: (801) 422-0930
Email: David_Barney@byu.edu

Keven A. Prusak, Ph.D.
Associate Professor
Brigham Young University
249 H Smith Field House