Research to Practice

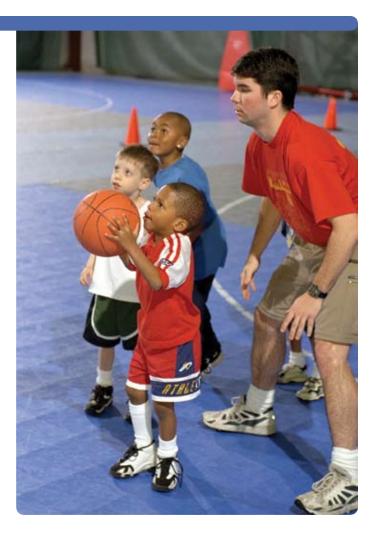
Appropriate Practices in Elementary Physical Education:

Create a Foundation for Physical Education Majors

by David Barney and Brad Strand

any people remember physical education as playing Many people remember people dodge ball, football, tag, and red rover; as being a captain or as being chosen last; as being punished with exercise; and as being embarrassed by fellow students or teacher comments. The existence of these games and actions in elementary physical education has been called into question by Williams (1992, 1994, & 1996). He details criteria that would qualify games or activities for inclusion in a Physical Education "Hall of Shame" (PEHOS). Those criteria include (a) the absence of purported objectives, (b) the potential to embarrass individual students in front of the rest of the class, (c) a focus on eliminating students from participation, (d) an overemphasis on and concern about students simply having fun, (e) a lack of emphasis on teaching motor skills and lifetime physical fitness skills, (f) extremely low student participation time, and (g) an unacceptable likelihood of danger, injury, or harm.

Games cited by Williams as apt PEHOS candidates include line soccer, messy back yard, red rover, Simon says, SPUD, tag, dodge ball, duck duck goose, giants elves and wizards, kickball, relay races, and steal the bacon. In addition to games and activities, he describes common inappropriate teaching practices, including (a) putting students on display; (b) allowing only one line,



one ball, or one chance; (c) rolling out the ball; (d) using inappropriately sized equipment; (e) using exercise as punishment; (f) assigning student captains to choose teams; and (g) conducting physical education classes as a sports camp.

In the fall of 2004, one author had college students in one of his classes describe an inappropriate activity they experienced in physical education. Many students wrote about fitness testing and being singled out for not doing well. Others talked about being injured, about teachers separating students into groups of jocks and nerds, about intentional embarrassment by the teacher, and about being punished with exercise. The other author recently experienced a situation in which his first grade daughter took part in a wrestling unit during elementary physical education class.

For much too long, students, parents, and school administrators have accepted inappropriate practices in physical education without question, often simply because they did not know better and assuming that "that is the way things have always been done in gym class." In 1992, the Council on Physical Education for Children published a position statement (COPEC, 1992/2000a) that clearly establishes what should be expected of elementary school physical education specialists. Subsequent documents have been published to support appropriate practices in physical education classes at a variety of grade levels (COPEC, 2000b; MASSPEC, 2001, 2004). A literature search failed to find even one research study indicating whether or not physical education specialists adhere to these practices in the field or even if they know about or understand them. We decided to conduct a bit of action research. As a starting point, we gathered information from physical education majors regarding their knowledge of appropriate practices in elementary physical education as outlined by COPEC.

Participants included 99 physical education majors (freshman = 13, sophomore = 18, junior = 26, and senior = 42; male = 57 & female = 42) from three universities, two located in the Midwest and one west of the Rockies. Students voluntarily participated after being assured that nonparticipation or withdrawal would not negatively affect their grades.

The Survey

The authors constructed an 80-item survey from components of the 2000 COPEC statement of appropriate practices for elementary school physical education. Participants were to respond to each item as being either appropriate or inappropriate. Six highly qualified and experienced teachers serving as reviewers established the credibility of the survey by achieving a 98% consensus on how each item should be marked (appropriate vs. inappropriate). Based on that consensus, the reviewers then assisted in reducing the number of items from 80 to 40. The final survey focuses on four general areas of interest: curriculum decisions (7 items), assessment (4 items), health-related fitness (10 items), and active participation of every child (19 items). In each area, half the items reflect appropriate practices and half reflect inappropriate practices.

What We Learned

Of 3,960 possible responses, 3,199 (77%) were answered correctly, i.e., "correctly" meaning the participants responded the same way (appropriate vs. inappropriate) the reviewers did. By topic, 94% of the curricular items were answered correctly, 76% of the health-related fitness items were answered correctly, 75% of the assessment items were answered correctly, and 80% of the active participation for every child items were answered correctly. Slight differences were noted by gender, with females tending to correctly answer items more often than males across all four topics.

Generally speaking, physical education majors in this study tended to correctly identify appropriate practices in elementary school physical education. However, while that is encouraging, we should perhaps be more concerned about the possibility of systematic incorrect responses. For example, only 15 of the 40 items were answered correctly 90% of the time, though 30 of the 40 items were answered correctly at least 80% of the time. So, looking at the data from the opposing direction, it turns out 10 of the 40 items were answered incorrectly more than 45% of the time. This suggests a systematic misunderstanding and is the basis for the remainder of this article.

Following are the ten items the participants had the most difficulty identifying correctly as either appropriate or inappropriate. Each is accompanied by a discussion of the relevance of the item.

Statement: Dress, attendance, and effort should be counted as the affective portion of the grade. (Inappropriate)

This item was answered correctly by only 6% of the participants. Miller (2002) states that basing grades on dress, attendance, and effort undermines physical education and the true purpose of a physical education class. Neither dress, attendance, nor effort are relevant assessments of students' affective skills related to physical education. Rather, teachers should explore a variety of alternative assessment techniques to analyze students' understanding and the teachers' effectiveness. Note: It's also possible the participants understand that dress, attendance, and effort are not appropriate measures in the psychomotor and cognitive domain and defaulted them to the affective domain. But that would mean they have an incomplete understanding of how the social/affective domain contributes to learning in physical education.

Statement: Teachers may use games with a learning purpose or goal of keeping children "busy, happy, and good." (Inappropriate)

This item was answered correctly by only 18% of the participants. Students themselves may experience a class as "busy, happy, and good," but the teacher should not assume that enjoyable, compliant physical activity equates with learning objectives and meeting standards. From the teacher's perspective, all classes should be based on specific objectives related to what students will learn about movement and physical fitness.

Statement: Teachers may use activities such as relay races, dodge ball, and elimination tag since they provide opportunities for everyone in the class. (Inappropriate)

This item was answered correctly by 33% of the participants. Indeed, physical education classes should be designed to provide all students with ample opportunity to participate and be active the entire class period. However, in the activities listed, the students who need physical activity the most (typically those not interested in sports) are also the most likely to be eliminated early and often.

Statement: Teachers may organize full-sided or largesized games (e.g., the class of 30 split into 2 groups of 15 that play against each other). (Inappropriate) This item was also answered correctly by 33% of the participants. Pangrazi (2004) suggests that students learn more when they all have their own equipment (ball, hoop, beanbag, etc.) and space to participate. When every student has their own equipment, they focus better on the task at hand, thus reducing off-task behavior. Placing students into large-sized games sets the stage for problems such as misbehavior, inattention, and general apathy.

Statement: Teachers should administer physical fitness tests once or twice each year for the purpose of identifying children to receive awards or to meet a requirement of the school district or state department. (Inappropriate)

This item was answered correctly by 44% of the participants. The real reason for fitness tests is to help students evaluate and become more educated about their physical fitness (Pangrazi, 2004). In particular, among elementary-aged students, teachers should promote the process of testing rather than just the product (end result). The "process" orientation allows teachers the flexibility to help and encourage students while making the testing a positive capstone experience.

Statement: Assessment items should focus on isolated skills in an artificial context (e.g., dribbles between cones for time as compared to dribbling in a game situation). (Inappropriate)

This item was answered correctly by 50% of the participants. Graham, Holt-Hale, and Parker (2004) note that assessment should be meaningful and worthwhile. Authentic or alternative assessments have become popular methods for evaluating student learning. Examples include rubrics, peer observations, student journals, and checklists. Such assessment is also a more efficient use of time, since it can be conducted as all students are active or can be completed among and between the students themselves.

Statement: Teachers may use large groups in which student participation is based in individual competitiveness. (Inappropriate)

This item was also answered correctly by 50% of the participants. Large group and team activities result in too much standing around and not enough individual movement. For better participation, teachers can shorten or widen the field, use a bigger ball, change game rules, and have students focus on certain skills in the context of multiple small-sided games. Darst and Pangrazi (2002) suggest that more effective student learning takes place when students have frequent interaction with a ball, racquet, or beanbag. So, games should be specifically modified to provide students a greater chance of interacting with equipment.

Statement: Children should be allowed to choose between keeping score and skill practice in selected situations. (Appropriate)

This item was answered correctly by 52% of the par-

ticipants. Teachers should be aware of the developmental nature of competition and incorporate appropriate levels and kinds of competition for children. To help children develop their own understanding, the teacher should allow students choices of *how* they will participate, in the form of intratask variation (Graham et al., 2004).

It is not the purpose of elementary physical education for students to learn to be competitive. Older elementary students who show a keen interest in "winning or losing the game" should be encouraged to engage in after-school sports.

Statement: Exercises should be taught as positive physical activity learning experiences but not as a primary part of elementary physical education. (Appropriate)

This item was answered correctly by 53% of the participants. Physical educators have a great opportunity to make physical activity a positive experience in a student's life; however, in years past, physical educators have used physical exercise as a form of punishment for students who were misbehaving. This has confused students about the importance and value of exercise. While Pangrazi (2004) asserts that giving students a variety of exercises will help increase student options for maintaining an active lifestyle, teachers should help students understand that exercise prepares the body for activity, not that physical activity is somehow limited to exercise.

Statement: Calisthenics/mass exercise should be the avenue for fitness development. (Inappropriate)

This item was answered correctly by 55% of the participants. Exercises can be taught in the elementary as basic skills; however, there are other skills that can contribute to fitness development as well. Limiting fitness development to mass exercise and calisthenics is boring, and a sure way to discourage future exercise. So, as with alternative assessment, teachers have the responsibility to explore multiple means of achieving the various goals of physical education, not just those passed down by prior generations.

Applying What We Learned

For the past five years, all physical education majors at North Dakota State University (NDSU) have been provided with the "appropriate practices" documents (now available online at http://www.aahperd.org/naspe) for physical education. They have been introduced and used in multiple courses; however, the findings reported here have led to a more systematic implementation of those documents. For example, during in-school observations, students team-teach at a local elementary school. Prior to their own teaching, they observe the cooperating teacher to get a feel for how the class flows, using an appropriate practices checklist to guide their observations.

Discussion

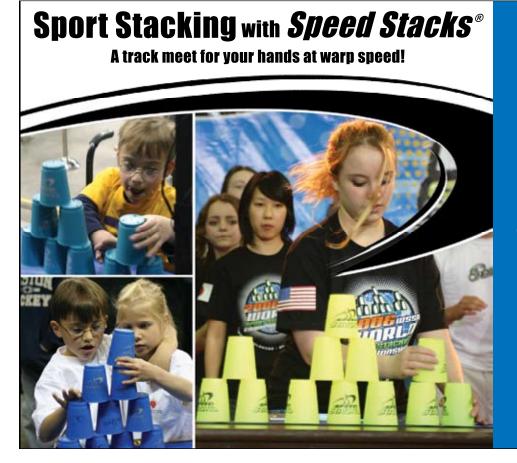
Over the past 25 years, much has changed in K-12 physical education. New technologies are being used, curricula have expanded, and our views of acceptable practices have changed. Aspiring physical education teachers are now exposed to national guidelines, standards, and research as never before. That exposure should result in positive changes in teaching practices. The action research reported here has identified areas within physical education that still must be addressed. New teachers must be knowledgeable of the full range of appropriate and inappropriate practices. Teacher preparation programs are the first link in improving the quality of physical education as a whole, and teacher preparation programs should include the NASPE appropriate practices documents in their courses of study. However, teachers in the field must also be familiar with the current standards and practices so they can serve as positive role models for those entering the field. Bottom line: all physical educators must know exactly what is and is not appropriate and then teach accordingly.

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