

## In K-12 physical education classes, should more time be spent on cardiovascular fitness than on skill development?

Ideally, cardiovascular and skill development should both be in *daily* elementary physical education classes. Realistically, the emphasis must be on skill development, since we can directly impact that phase of a child's educational development in the gym on a weekly basis.

Cardiovascular fitness development is impossible in the majority of elementary physical education programs. Most elementary students attend physical education class only once a week. From research, we know that one weekly exercise session will not develop cardiovascular endurance. However, we can provide students with the basic concepts to get themselves in shape and stay that way for a lifetime. Fitness development should not dominate an elementary physical education curriculum, but fitness concepts should be included.

Skill development should be an integral part of the elementary physical education curriculum. During a weekly physical education class, students can enhance their skills if provided with adequate resources (i.e., one piece of equipment per child). Skill activities can be integrated into every component of the physical education class: warm-up, fitness activity, skill development, and cool-down.

If elementary physical education teachers were all graded on the fitness levels of our students, most of us would fail. But during a weekly physical education class we can teach the students basic concepts while directly enhancing skill development.

—Jonathan H. Buzby, physical education specialist, Smyrna Elementary School, Smyrna, DE 1977

Although I am a strong advocate of greater emphasis on cardiovascular fitness and fitness concepts as a whole in K-12 physical education, I do value skill development as *part* of the curriculum. Children must be taught the skills necessary to perform efficiently and effectively if they are going to engage in activity independent of the classroom. Accordingly, the majority of time should be spent on skill-centered instruction in the primary grades. Benchmarks are especially critical in this stage of learning, as the underpinning of skill development in the student is being formed.

As children become mature movers, emphasis should be shifted to include cardiovascular fitness and other fitness concepts, as cognitive development allows. This will lead to a healthier, informed participant who is more likely to continue an active lifestyle through adulthood.

—Brett C. Christie, graduate student, Department of Physical Education, University of New Mexico, Albuquerque, NM 87131-1251

In the March 1996 *JOPERD*, at least two articles address this topic. Arlene Ignico's review of research carried out by Quinn and Strand draws attention to a teaching model called FSPIM (Fitness-Skill-Play-Integration Model) in which a significant amount of the skill development time provides "activity in the target heart rate zone." In other words, the issue is not an either/or dichotomy. The focus should be on maximizing cardiovascular fitness while effective skill development is being carried out.

An article in the same issue by Brad Strand and Steve Reeder explores this theme at length. The authors stress the fact that the majority of secondary students do not exercise frequently enough to meet minimum standards. The authors use an integration game activity approach so that students at every skill level "play a relatively intense form of a game early in the unit." In razzle-dazzle football, a game described by Strand and Reeder, players face virtually no limitations. They can pass the ball from anywhere on the field, and at any time, and can throw unlimited passes during any down. The only constraint is athletic fitness and cardiovascular efficiency.

—Scott A. G. M. Crawford, professor, College of Education and Professional Studies, Eastern Illinois University, Charleston, IL 61920

It is not so much a question of time as one of emphasis. The physical educator's most important mission as we approach the year 2000 is undoubtedly the promotion of fitness. However, to do this by devoting time exclusively to cardiovascular fitness development would be counterproductive. Skill development is still very important, because without it the chances of students becoming lifelong sports participants are very slim.

The key is to combine the two objectives and to teach skills in a way which simultaneously develops fitness. This can be done by carefully selecting activities which allow students to practice their skills but at the same time require significant cardiovascular exertion.

Fitness development should, however, be the overriding objective. If sacrifices need to be made in skill progression to enable all students to remain active, then they must be accepted.

—Robert Heath, chairperson, Physical Education Department, Escuela Campo Alegre, Caracas, Venezuela

**S**kill development is very important; however, I question whether this is the job of physical educators. There has been an increase in recreational opportunities throughout the United States; perhaps the recreation departments, park districts, and other professional providers of leisure services should be accountable for the skill development so often concentrated on in physical education classes.

Keeping in mind that some skill development will inevitably be required to properly administer a cardiovascular curriculum, I believe that as much emphasis as possible should be placed on cardiovascular fitness development.

—Jeff Hunt, superintendent of Facilities and Services, Charleston Recreation Department, Charleston, IL 61920

**I**n grades K–5, skill development is essential for maturing children. It enables them to acquire the basic skills needed to participate in lifelong activities. Also, there is more active play, nonstop running, and jumping long after physical education class is over.

As the child enters sixth grade, recess ends and inactivity begins. Changes occurring in adolescence

play a major role in physical ability. At this point in time, cardiovascular fitness should be a major aspect in a physical education curriculum.

After comparing fitness tests in the mile run, sit-ups, pull-ups, and the shuttle run, there seemed to be a significant decline in results from the elementary to the secondary grade levels. I feel this is a direct result of students becoming less active out of school. Therefore, increased cardiovascular activity is essential in grades 6–12 in order to promote life-long cardiovascular fitness and wellness.

—Marci Klenn, physical educator, James Hart Jr. High School, Homewood, IL 60430

**P**robably not, if we accept the assumption that what we do in physical education class affects future exercise behavior. In other words, if we buy into the concept that by developing good exercise habits in our students, we create in them patterns of behavior that are carried on throughout their adult lives, then we should be spending most of our time in class on developing those patterns, not on getting students fit.

Developing patterns should involve spending the majority of time on lifetime sports which develop the tools (sports skills) by which fitness can be achieved. Any job is difficult without the right tools. Likewise, without the right sports and exercise tools, adults will have a more difficult time getting the job done (i.e., achieving a healthy lifestyle). Research shows that most sport skills are learned before age 20. Adults are less likely to learn new

sports activities after that age; thus it becomes important to teach those skills early in life.

Research also shows that people who have fun and enjoy the process of exercise are more likely to continue with it and, in the process, become fit. If we focus on fitness and our students develop a distaste for the process of doing exercise, then we may have won the battle but lost the war.

—Jack Rutherford, director of Wellness and Seabury Center, Berea College, Berea, KY 40404

**I**t is difficult to attain any level of fitness or skill acquisition when many physical education classes have too many students, do not meet daily, or have limited class time. Current research indicates that running and engaging in physical fitness tests are the least liked aspect of physical education. *JTPE* articles (July 1995)

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noted that low-skilled individuals did not enjoy or understand the purpose of physical education.

Fun and enjoyment have been demonstrated to be key components in students' liking of physical education, and skill level appears to be one of the factors affecting students' enjoyment. We believe appropriate skill development should be our key focus. Cardiovascular fitness can be developed through the integration of fundamental locomotor and stability movements with the movement framework in grades K-2; through the practice of educational games, dance, and gymnastics in grades 3-4; and through participation in modified, active sports such as soccer, field hockey, basketball, and tennis in grades 5-8.

Attainment of movement skills will provide one incentive for enjoyable movement experiences. To work specifically on cardiovascular fitness without developing efficient move-

ment skills is a waste of time.

—Jane M. Shimon and Cynthia Carlisle, School of Kinesiology and Physical Education, University of Northern Colorado, Greeley, CO 80631

Isn't cardiovascular fitness development one of the skills necessary for a healthy and fit life? My concern is that we are so focused on cardiovascular fitness that we neglect the skills necessary to give our students a solid base upon which to build our healthy lifestyle. In some countries skill development and game play are treated as dirty words. "Play the game? Blasphemy!" If we as educators design our program correctly, cardiovascular fitness should be developed along with skills. Let's make sure our students have all the necessary tools to enable them to make correct choices for the rest of their lives. Many times the only exposure our students have to team handball,

lacrosse, hockey, tennis, and so on is in the public school arena. These activities are now being eliminated in order to promote the image that "we don't just play games; we are working on fitness." Can't we do both? Where else will our students get these experiences—at no additional transportation or monetary cost? Where else should they?

—Heather Stutland, Cherry Hill Middle School, Elkton, MD 21921

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**The following selected responses are from undergraduate students at Trenton State College, Trenton, NJ 08650-4700.**

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## September question

### Because of liability concerns, should gymnastics be excluded from the K-12 physical education curriculum?

Respond in 200 words or less, and send your response by July 19 to *JOPERD*, Issues, 1900 Association Drive, Reston, VA 22091. We also welcome readers' suggestions for future Issues questions.

and make them want to continue participating in movement activities throughout their lives. Most children do not like structured fitness programs. They do, however, enjoy movement activities and games that result in the same objectives. Students will not have to participate at their maximum heart rates to be fit, if we provide them with the opportunity to participate in activity in and out of school. Their desire to play more often and their knowledge of how will enable them to be more fit.

—Liza Asch

At the elementary level, more time should be spent on skill development than on cardiovascular fitness. There should always be time during class for cardiovascular fitness, but the bulk of the time should be spent on skill development at this level. Children need to learn and master the skills they will need to play organized sports when they get to the higher levels of school. A teacher should fit a cardiovascular emphasis into the skill development activities. Most elementary children are very excited about the games played in physical education, so it is not hard to motivate them to be fit. At upper levels, where students should already have the skills to succeed in games, teachers should work on cardiovascular fitness and lifetime sports. The older students are not as motivated to stay in shape, and they

need this extra push.

—Carla Dileo

The best possible solution to this dilemma would be to incorporate these two objectives in the same lesson. For example, if you are implementing a lesson on the basketball dribble, incorporate an extensive amount of running while practicing dribbling skills. If you lack the equipment or space for this activity, then you might try alternating your daily routine. For instance, Mondays and Wednesdays can be set aside as fitness days, while the other days can be used for enhancing skill development.

—Wally Kappeler

Cardiovascular disease is the leading cause of death in the United States, Canada, and Western Europe. Every year more than 1 million Americans have heart attacks, and about 500,000 of them die. An increasing body of evidence appears to link many adult health problems to inactivity and poor nutritional habits during the childhood years. However, cardiovascular deaths in the United States have declined, and the downward trend appears to be accelerating. This development may be due in part to early education on cardiovascular fitness in American schools. Physical education plays a vital role in the development and

maintenance of cardiovascular fitness. We must promote attitudes favorable to an active life through vigorous, fun activities. This requires that more time be spent on cardiovascular fitness development than on skill development.

—Jeremiah I. Wilson

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*The following selected responses are from undergraduate students at Eastern Illinois University, Charleston, IL 61920.*

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In grades K-6, children need to focus on their skill development more than cardiovascular fitness. At these ages children need to get familiar with themselves, and more focus should be spent on movement education and skill development. With the types of games that are played at the K-6 level, cardiovascular fitness is incorporated to a certain extent. Cardiovascular fitness is definitely important at all levels, but it is more important at the 6-12 level. At this level, kids are familiar with several different types of skills and are more successful at incorporating them into games. At the 6-12 level there should be a definite focus on cardiovascular fitness. Kids should be informed of all the benefits of cardiovascular fitness, including diet and exercise.

—Krista Vieth

In our society, heart disease is one of the leading causes of death. Risk factors include gender, age, heredity, smoking, poor diet, and a more sedentary lifestyle. These ideas are important when considering a curriculum, but they are often overlooked. As educators we should always be thinking of our students and how we can best help them. I believe that the best way to help them is to start early in promoting something they develop instinctually at play—cardiovascular fitness.

—Tod Rejholec