Journal of Physical Education, Recreation & Dance
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/ujrd20

Virtual Physical Education in the K-12 Setting

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Version of record first published: 26 Jan 2013.

To cite this article: Deborah J. Rhea (2011): Virtual Physical Education in the K-12 Setting, Journal of Physical Education, Recreation & Dance, 82:1, 5-50

To link to this article: http://dx.doi.org/10.1080/07303084.2011.10598551

Virtual Physical Education in the K-12 Setting

Deborah J. Rhea

As education evolves, the traditional K-12 school setting as we know it is changing before our eyes. The increased emphasis on individual student achievement and the emergence of web-based instruction tools are boosting the creative ways in which we teach students. With the rise in obesity among children in the United States and the decline in their physical activity levels by the time they reach high school, K-12 administrators and teachers are trying to find ways to reach the students who are dropping out, refusing to participate, and wanting more academic choices than their school might be able to offer. The most popular method right now is the use of virtual schools, defined as "an educational organization that offers K-12 courses through Internet or web-based methods" (Clark, 2001, p.1). Virtual K-12 education is a form of distance education, which can be defined as "formal education in which a majority of instruction occurs while teacher and learner are separate" (Verduin & Clark, 1991, p. 8). It includes delivery methods such as independent or correspondence study, videoconferencing, and other instructional technologies (Clark, 2001).

The virtual school market is exploding across the United States. According to Kellogg (2008), at least 40 accredited virtual schools are already serving approximately 520,000 students. These schools once offered only advanced placement and remedial classes, but they now provide supplemental coursework and, in some cases, core curriculum. Seventy-five percent of the virtual school programs are delivered through purchased or licensed outside providers, and the other 25 percent are developed by the school systems. The target audiences for virtual schools are 75 percent of home-schooled students, 30 percent of elementary school students, 68 percent of middle school students, and 100 percent of high school students (Kellogg).

This trend is also finding its way into the physical education and health education settings in different states, including New York, California, Florida, Illinois, and Texas (Texas Virtual School, n.d.). The lack of funds to hire specialized instructors for individualized activities, academic achievement pressures, and high obesity rates among students are pushing administrators to consider the use of online and virtual school settings for physical education credits throughout the K-12 setting. Many schools are taking physical education students completely out of the gym by offering physical education as an independent study class. Students get credit for doing physical activities outside of school, which some believe allows students to focus more on academic areas in school and learn to enjoy physical activity in their free time (Andell, 2008).

Changes from traditional to virtual classes have brought about praise and criticism. Many agree that virtual classes should not be the only option for core or elective credits, but rather a supplemental option for students. Several schools have shown why this

is a good option. For example, the rural community of Branson, Colorado, did not have enough students to keep their traditional school viable, but through the use of a virtual school open to neighboring communities as well, they increased enrollment from 30 students to 1,107 students in grades K-12 and were able to keep the doors open for the rural student population (Sternberg, 2006). The reasons students enrolled online in this school district were to recover lost credits and to take courses that they could not fit into their regular school schedule. Physical education is offered online for a variety of reasons, including (1) so that students who are elite athletes or musicians and who travel often are able to stay current on their school work, (2) so students can take classes that are not offered in their school setting (e.g., yoga, martial arts), and (3) so students who are insecure about their lack of coordination and physical skills can play and participate in physical activities without classmates bullying them.

Virtual schools will not be leaving anytime soon, but the reasons why virtual schools should not be the only way to receive credit for physical or health education should also be considered. Declines in physical activity levels have been reported in both middle and late childhood, particularly for girls (Allison, Adlaf, Dwyer, Lysy, & Irving, 2007; Riddoch et al., 2004). Giving students the opportunity to take classes online rather than in school causes many teachers and parents to worry that students will do worse in academics and will lose the socialization aspect of school physical education classes. Research shows that stimulating the brain through physical activity throughout the day promotes more efficient learning than sitting at a desk all day long. One study showed that when students were active for at least 20 minutes (walking) and were then given a reading task based on "the guidelines set forth by the Wide Range Achievement Test," the increase in reading comprehension after exercise equated to approximately a full grade level (Castilli & Hillman, 2009). Other research has shown that when students participate in more hours of moderate-to-vigorous physical activity (MVPA), they earn higher GPAs (Fox, Barr-Anderson, Neumark-Sztainer, & Wall, 2010). Therefore, research suggests that schools should still schedule outdoor recess as a part of each school day, offer formal physical education 150 minutes per week at the elementary level and 225 minutes per week at the secondary level, and encourage classroom teachers to integrate physical activities into their lessons.

New Mexico senator Tom Udall, supporter of this research conclusion, has introduced Senate bill 3683 for the purpose of making physical and health education core classes required at all levels in K-12 education. The bill would also require measurement of the proficiencies of all students in health and physical education at least once in grades three through five, grades six through nine, and grades 10 through 12. This will be accomplished by amending the Elementary and Secondary Education Act of 1965. These changes would take effect no later than the 2012-2013 school year. If this bill passes, both online and traditional school options can be utilized, but the assessment of proficiencies will be managed in the traditional school environment. This would be the first time that physical education and health education are given the respect they deserve.

You may have read the title of this editorial and had preconceived negative ideas about where this article would go, just as I did when I decided to examine the subject. After doing the research, I acquired an entirely different perspective that altered my initial intentions. Virtual classes do play an important role in the future of physical and health education, so let us make them work for us by using web-based courses to enhance our programs, not to replace or remove them.

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gymnasium walls as reminders for students. The pictures could show a hand with stars on the finger pads, a figure dribbling with knees bent, and a figure with a hand on top of the ball (Graham et al., 2009).

Culminating Game

The game is called "Volcanoes." The cones set up in general space represent the "volcanoes." The students dribble in general space trying to avoid the volcanoes. They can also practice dribbling at different levels (low, medium, high) or at different speeds (slow, medium, fast) depending on their personal skill level. If a student's ball hits a volcano, the student places the ball on top of the cone to stop the lava from spilling out and must perform a fitness activity, such as jumping jacks, high knees, or whatever the teacher chooses for that day. Once the activity is performed as many times as the teacher chooses, the student takes the ball off the cone and continues to dribble. This activity can be made more or less difficult by adding or taking away cones, making the space larger or smaller, or by providing different types of balls to dribble with.

Conclusion

Dribbling is not only about the sport of basketball, but a skill that can be used as the basis for other challenging and fun physical activities for children (Rovegno, Chen, Todorovich, 2003). Teaching dribbling outside of the sport context allows students to be challenged, to explore new skills, and to be physically active. The teaching tips discussed in this article can help teachers provide their students with a unique activity that can be incorporated into any dribbling unit.

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Submissions Welcome!

Teaching Tips features short articles about ideas that practitioners at all levels can readily implement. Articles should be six double-spaced pages or less. The editor is particularly interested in receiving ideas from practicing, K-12 teachers. To submit an article, send the text as an email attachment to Ferman Konukman (fkonukma@brockport.edu) and put "JOPERD Teaching Tips Submission" in the subject line of the email.

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In Memoriam

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tance to the mundane. After Tony retired and no longer published in professional journals, he became a social critic. Figures 1 and 2 give examples of his concerns and wit in his retirement years in West Lafayette, Indiana.

Family Man

Tony loved his family. His wife, Betty Jo or "Bets," was his partner and best friend for 47 years. He loved his son, Dan, a graphic designer at Purdue and professional artist. The major loves of his later life were his granddaughters, Madeena and Savannah. We have never seen a grandfather more proud of his grandkids than Tony Annarino.

For Tony, a Final Word

One significant difference between Punxsutawney Phil and Tony Annarino is that it has taken about 20 different Phils to carry on the 120-year tradition of prognostications for the coming of spring, but there was only one Tony Annarino. For 87 years his sunny and shadowed pronouncements on living gave us all an example of how to live an honorable and heroic life.

—Thomas J. Templin (ttemplin@purdue.edu) is a professor in the Department of Health and Kinesiology at Purdue University and former president of the National Association of Sport and Physical Education. William A. Harper is a professor and head of the Department of Health and Kinesiology at Purdue University, in West Lafayette, IN 47907.