The Effects of Using Peer Tutors for Visually Impaired Students in Physical Education

What Was the Question?

The integration of students with visual impairments is becoming more common in public schools. With this integration, challenges arise relative to academic learning time in physical education (ALT-PE). According to Wiskochil, Lieberman, Houston-Wilson, and Petersen (2007), some of the reasons for this may include reduced participation opportunities compared to sighted peers, apathetic teachers, or teachers without the skills and knowledge to appropriately include visually impaired students. Research has supported the use of peer tutors as an effective and cost-efficient means of increasing the success of students with visual impairments in general physical education classes (Fernandez-Vivo & Cordero, 2005; Houston-Wilson, Lieberman, Horton, & Kasser, 1997). The Wiskochil et al. study (1) examined how peer tutors affect visually impaired students' ALT-PE scores, (2) compared the effects of trained and untrained tutors , and (3) compared the effects of peer tutors on visually impaired students' performance of open and closed activities.

What Was Done?

Data were collected from four students with visual impairments (two with low vision and two who were blind) and from two to four same-aged, same-gendered peer tutors from each of their integrated physical education classes. Visually impaired students (tutees) were chosen from several different grade levels and from different schools in the western New York area. Two to four tutors were selected from each tutee's integrated physical education class and were trained to ensure consistent and skilled tutoring throughout the study. At each site, the primary researcher and physical education teacher chose a sighted classmate with skills comparable to those of the visually impaired participant to serve as a comparison of time spent in physical education. After the selection process, each tutee was videotaped in four to five physical education classes to establish a stable baseline. Once the tutors were trained, all participants were videotaped for six to eight physical education classes as documentation of the intervention. Throughout the intervention phase, the primary investigator monitored and gave feedback to the tutors and met with them before and after each class. Researchers established inter-observer and intra-observer reliability above 90 percent for all ALT-PE scores.

What Was Found?

Researchers found that all tutees increased their ALT-PE mean percentages with the intervention of same-aged, same-gendered peer tutors. The two students with no vision improved their mean ALT-PE scores by 38.8 percent and 10.7 percent, respectively. One student with low vision improved his mean ALT-PE scores by 29.6 percent. The other low-vision participant showed less improvement following the intervention, possibly due to her previous involvement in sports or the presence of more useable vision. This same participant also had higher average ALT-PE scores during the baseline than the other visually impaired participants. The authors also reported that trained peer tutors were more effective than untrained peer tutors, although data were collected on only two of the visually impaired participants for this comparison. The ALT-PE scores improved for both open- and closed-skill activities, although more during closed-skill activities (29.4%) than during open-skill activities (16.6%).

What Does the Study Mean?

This study demonstrates that peer tutoring can have a positive effect on the ALT-PE scores of students with visual impairments in general physical education classes. Peer tutoring has been found to be an effective and cost-efficient means of improving ALT-PE scores for visually impaired students. To reduce the gap between the ALT-PE scores of visually impaired students and their sighted peers, physical educators should consider training sighted peer tutors in the use of appropriate teaching and feedback techniques (i.e., verbal instruction, skill demonstrations, feedback, and physical guidance) to increase visually impaired students' ALT-PE scores.

Reference

Fernandez-Vivo, M., & Cordero, I. (2005). *Effects of peer tutor-*

Continues on page 51

Submissions Welcome!

Readers may send Research Works abstracts to Suzan F. Ayers at s.ayers@wmich.edu.

Submission Requirements

- Abstracts must be of research articles published in refereed HPERD journals within the past year.
- Abstracts should follow the Research Works structure.
- Research results should be applicable to practitioners.
- Also send the full text of the source paper.
- Length should be no more than two double-spaced pages.

with disabilities. There are a wide variety of disabilities and the adapted physical education teacher should be knowledgeable enough to meet all students' needs.

If I were a parent of a student with disabilities, I would want the adapted physical education teacher to have passed the exam, just as all parents would want their child's physical education teacher to have passed the Praxis exam. Schools should not be hiring adapted physical education teachers who have not passed the exam.

—Lisa Edison, physical education teacher, The Davis Academy Lower School; graduate student, Georgia State University, Atlanta, GA.

In today's atmosphere of overtesting, I believe that testing with a purpose is imperative, especially when it comes to the educators of tomorrow. The Adapted Physical Education National Standards exam should be just as necessary as the Praxis. Using this exam can help reduce a school district's fears concerning liability when working with students with disabilities. In creating the least restrictive environment, districts can be at ease knowing that their employees are aware of the special care needed to teach students with disabilities. Failing to make this test mandatory would be an injustice, infringing on the rights of those who are entitled to free, appropriate education.

—Dan Polles, student, The College of New Jersey, Ewing, NJ.

Editorial

Continued from page 4

disabilities. *Adapted Physical Activity Quarterly, 21,* 139-152.

Graser, S. V., Pangrazi, R. P., & Vincent, W. J. (2009). Step it up: Activity intensity using pedometers. *Journal of Physical Education, Recreation & Dance, 80*(1), 22-24.

Kim, S.-Y., & Yun, J. (in press). Determining daily physical activity levels of youth with developmental disabilities: How many days of monitoring are required? *Adapted Physical Activity Quarterly.*

McKenzie, T. L., Sallis, J. F., & Nader, P. R. (1991). SOFIT: System for observing fitness instruction time. *Journal of Teaching in Physical Education, 11,* 195-205.

Pan, C. Y., & Frey, G. C. (2006). Physical activity patterns in youth with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 36*, 597-606

Puhl, J., Greaves, K., Hoyt, M., & Baranowski, T. (1990). Children's activity rating scale (CARS): Description and calibration. *Research Quarterly for Exercise and Sport, 61*, 26-36.

Rimmer, J., Rowland, J., & Yamaki, Y. (in press). Obesity and obesity-related secondary conditions in adolescents with disabilities. *Journal of Adolescent Health.*

Schreiber, J., Marchetti, G., & Crytzer, T. (2004). The implementation of a fitness program for children with disabilities: A clinical case report. *Pediatric Physical Therapy, 16*, 173-179.

Steele, C. A., Kalins, I. V., Rossen, B. E., Biggar, D. W., Bortolussi, J. A., & Jutai, J. W. (2004). Age-related health risk behaviors of adolescents with physical disabilities. *Soz-Praventivmed, 49*, 132-141.

Suzuki, M., Saitoh, S., Tasaki, Y., Shimonmura, Y., Makishima, R., & Hosoya, N. (1991). Nutrition status and daily physical activity of handicapped students in Tokyo metropolitan schools for deaf, blind, mentally retarded, and physically handicapped individuals. *American Journal of Clinical Nutrition, 54*, 1101-1111.

Taylor, C. A., & Yun, J. (2006) Psychometric properties of two systematic observation techniques for assessing physical activity levels in children with mental retardation. *Pediatric Exercise & Sport, 18*, 446-456

Tappe, M. K., & Burgeson, C. R. (2004). Physical education: A cornerstone for physically active lifestyles. *Journal of Teaching in Physical Education, 23*, 281-299.

U.S. Department of Health and Human Services. (2000). *Healthy people 2010.* Washington, DC: Author.

—So-Yeun Kim (soyeunkim@niu.edu) is an assistant professor in the Department of Kinesiology and Physical Education at Northern Illinois University in DeKalb, IL 60115, and a member of the JOPERD *Editorial Board.*

Research Works

Continued from page 8

ing on academic learning time physical education of elementary school students with visual impairments in inclusive physical education classes. Presented at research poster session at the National Convention and Exposition of the American Alliance for Health, Physical Education, Recreation and Dance, Chicago.

Houston-Wilson, C., Lieberman, L. J., Horton, M., Kasser, S. (1997). Peer tutoring: A plan for instructing students of all abilities. *Journal of Physical Education, Recreation & Dance, 68*(6), 39-44.

Wiskochil, B., Lieberman, L. J., Houston-Wilson, C., & Petersen, S. (2007). The effects of trained peer tutors on the physical education of children who are visually impaired. *Journal of Visual Impairment and Blindness, 101*(6), 339-350.

—Abstracted by Marie Luisi, senior health and physical education major, The College of New Jersey, Ewing, NJ.