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December 2020

ARTICLE REVIEWED

Effects of the iPad and Mobile Application-Integrated Physical Education on Children's Physical Activity and Psychosocial Beliefs

Lee, J.E., & Gao, Z. (2020). Effects of the iPad and mobile-application-integrated physical education on children's physical activity and psychosocial beliefs. *Physical Education and Sport Pedagogy,* 1-18.

THE PROBLEM:

Childhood obesity continues to be an issue with children not meeting the recommended time of physical activity. Physical education (PE) has long been education's way to provide support for children's health.

Like other classrooms, today's PE includes the use of technology, such as iPads, accelerometers, smart boards, etc. However, there is little literature on the use of applications in PE and the impact it can have on student outcomes.

Research Summary:

The purpose of this study was to understand the effects of using applications during PE on students' physical activity levels and their psychological beliefs. The participants of the study were 157 fourth- and fifth-grade students recruited from two elementary schools. This study used a quasi-experimental design with students remaining at their school of enrollment. One school received three PE lessons without the iPad and three PE lessons using the iPad with applications to teach sport skills, exercise, and physical activity. The other school received six lessons of traditional PE. All students were assessed using the following: accelerometers to measure physical activity levels and sedentary behavior and a questionnaire to measure their self-efficacy, beliefs, enjoyment in PE, outcome expectancies, and social support.

Conclusion:

In this study, the PE teacher in the app-integrated PE group used applications such as Coach's Eye, GarageBand, Scoreboard, Educreation, Team Shake, etc. The results of the study found that a two-week intervention using the applications was not enough to produce significant reductions in students' sedentary behavior. However, the app-integrated group had significantly higher participation in light physical activity, while the traditional PE group had significantly more time in moderate-to-vigorous physical activity.

Key Takeaway:

This study provides several examples of applications and ways to use them to teach PE. It should be noted that PE teachers should choose to integrate applications into their lessons when it is developmentally appropriate, aligns with the goals of the lesson, and their pedagogy. It is also suggested to practice using the applications, so that the teacher is familiar with them prior to implementation.