

Physical activity in children can be improved through 'exergames'

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Physical activity among young people can be improved by well-designed and delivered online interventions such as 'exergames' and smartphone apps, new research shows.

According to a review study carried out at the University of Birmingham, children and [young people](#) reacted positively in PE lessons to the use of exergames, which deliver physical activity lessons via games or personalized activities. Changes included increases in physical activity levels, but also improved emotions, attitudes and motivations towards physical activity.

The study, published in *Physical Education and Sport Pedagogy* is one of the first to examine not only the impact of online interventions on physical behaviors in non-clinical groups of young people but the effects of digital mediums on physical activity knowledge, [social development](#) and improving [mental health](#).

The evidence can be used to inform guidance for health and education organizations on how they can design online interventions to reach and engage young people in physical activity.

The authors analyzed 26 studies of online interventions for physical activity. They found three main mechanisms at work: gamification, in which participants progress through different levels of achievement; personalization, in which participants received tailored feedback and rewards based on progress; and information, in which participants received educational material or guidance to encourage behavioral change.

Most of the interventions were focused on gamification or personalisation and the researchers found the majority of studies (70%) reported an increase and/or improvement in outcomes related to physical activity for children and young people who participated in online interventions. Primary school age pupils in particular who participated during PE lessons benefited.

Lead author Dr. Victoria Goodyear, in the University of Birmingham's

School of Sport, Exercise and Rehabilitation Science, said: "We find convincing evidence that PE teachers can use [online learning](#) to boost attitudes and participation in [physical activity](#) among young people, particularly at primary school age. There's a real opportunity here for the PE profession to lead the way in designing meaningful and effective online exercise opportunities, as well as an opportunity to embed positive approaches to exercise and online games and apps at an early stage."

More information: Students' perceptions of fitness testing in physical education across primary, secondary, and pre-university school levels: a motivational profiles perspective, [DOI: 10.1080/17408989.2021.1953458](#)

Provided by University of Birmingham

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