

Pavel Palička - Use of Modern Technologies in Physical Education at Schools

Abstract

Problem: The use of digital technologies in education is one of the possibilities how to support the pupils' motivation. Physical education (PE) offers a variable environment where various types of actual wearable technology (smart phone, tablet etc.) can be used. No integrated overview of possibilities and practical recommendations for the use of available digital technologies (DT) in physical education has been published. There is also lack of research results measuring impact of their use on everyday school practice.

Hypothesis: It was hypothesized that pupils who receive innovated experimental education programme using digital technologies will have better relationship to PE and greater intrinsic motivation to exercise.

Objective: The purpose of this study was to identify changes in intrinsic motivation and relationship to physical activity in physical education triggered by an experimental DT-involving education programme.

Methods: The research was carried out in form of a quasi-experiment conducted in physical education lessons in school years 6-9. The research sample (N=237) consisted of two groups. A group of 119 pupils in experimental lessons was compared with a control group of 118 pupils who went through traditional lessons. The research lasted for 3 months. Before the research and after its termination, all pupils were subject to fitness measurements and questionnaires. The research was mixed. Both quantitative (questionnaires, fitness tests) and qualitative (interviews) methods were used.

Results: The results of questionnaires monitoring the intrinsic motivation and relationship to physical activities in lessons of physical education did not prove any statistically significant differences between the control and experimental group. However, provable changes in increase of intrinsic motivation to PE and changes of values and relationship to the given subject appeared in partial variables (gender, age). The interviews showed some factors contributing to greater motivation of pupils at DT-involving lessons of physical education:

change in assessment of tuition, team work, selection of activities, positive reaction of parents, at-home exercise. Results of the fitness tests showed statistically significant differences between the experimental and control group.

Key words: Digital technologies, curriculum, physical education, mobile applications, intrinsic motivation, leisure time