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Possibilities of gamification in high school physics education

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In high school physics education, maintaining students' attention, motivation, and active participation is challenging. Gamification has a motivating effect and enhances student engagement, but it is crucial to align game elements with the groups'player type composition. This research focuses on gamification and the assessment of player types, using a 10th-grade advanced physics class as an example. After evaluating the group profile, determining the optimal balance of game elements that fits the groups' needs becomes easier. This poster presents experiences with the gamification system and some game elements fitted to the six player types, from the Hexad model, which can be applied to various topics within physics education.

Education level

Age 15-18 (Secondary education)

Physics topic

Other

Research focus

Student conceptions / Preconceptions / Misconceptions

Research method

Educational design research (Qualitative research)

Organizing preference criteria

Author: CSIKOS, Viktoria

Co-author: VARGA, Szabolcs (Eötvös Loránd University)

Presenter: CSIKOS, Viktoria

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