

Computer games in the classroom: Educational success depends on the teacher

March 3 2022



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New study results by a research team at the University of Cologne show that future teachers increasingly want to use computer games in the classroom. The study identifies particularly relevant aspects that should



be addressed in teacher training programs in order to support this intention. The study results have been published in the *British Journal of Educational Technology*.

Computer games play a major role in the lives and media use of children and adolescents people. However, current school teaching rarely takes this medium into account. The future generation of teachers currently being trained at universities could change this. "In our current study, we focused on the teachers of tomorrow and how they can be better prepared to employ computer games in the classroom because computer games have great potential for teaching," said Marco Rüth from the University of Cologne's Psychology Department.

In previous studies, the authors had already shown that as a learning tool in the classroom, computer games can support students' skills development. They also found that after using computer games in class, students can reflect critically and constructively on their experiences with the medium. Based on this, the researchers surveyed 402 teacher trainees from German-speaking universities online about their intention to integrate computer games as learning tools and as an object of reflection in their future school lessons. The team examined 21 personal characteristics, including perceived effectiveness of computer games, knowledge about computer games, and fear of using computer games in the classroom. "Above all, the perceived effectiveness of computer games and perceived connections of computer games to curricula play a central role in the intention of teacher trainees to actually want to use them in school lessons," Professor Kai Kaspar explained.

The current survey also revealed differences between the scenarios in which computer games are used: "If teacher trainees want to use computer games to promote the competencies of students, they pay particular attention to their own fear of using computer games and the extent to which people important to them think they should use



computer games," explained Marco Rüth. "If, on the other hand, they want to use computer games for media-critical discussions, the focus was instead on the effort involved for them."

Since computer games are currently rarely included as a relevant medium in teacher training programs, the researchers recommend that, above all, insights into the effectiveness of computer games and their relevance to curricula should be included in teacher training programs. Likewise, teacher trainees should be aware of potential pitfalls in practical implementation and be able to deal with them ,so that teaching competencies with computer games are promoted in the long term. "This would require not only adjustments to the curriculum of the teacher training program, but also further support services and research findings so that teachers in their later school practice know exactly when and how they can use computer games effectively in the classroom," said Professor Kaspar.

More information: Marco Rüth et al, Teaching with digital games: How intentions to adopt digital game-based learning are related to personal characteristics of pre-service teachers, *British Journal of Educational Technology* (2022). DOI: 10.1111/bjet.13201

Provided by University of Cologne

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