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Zürich^{UZH}

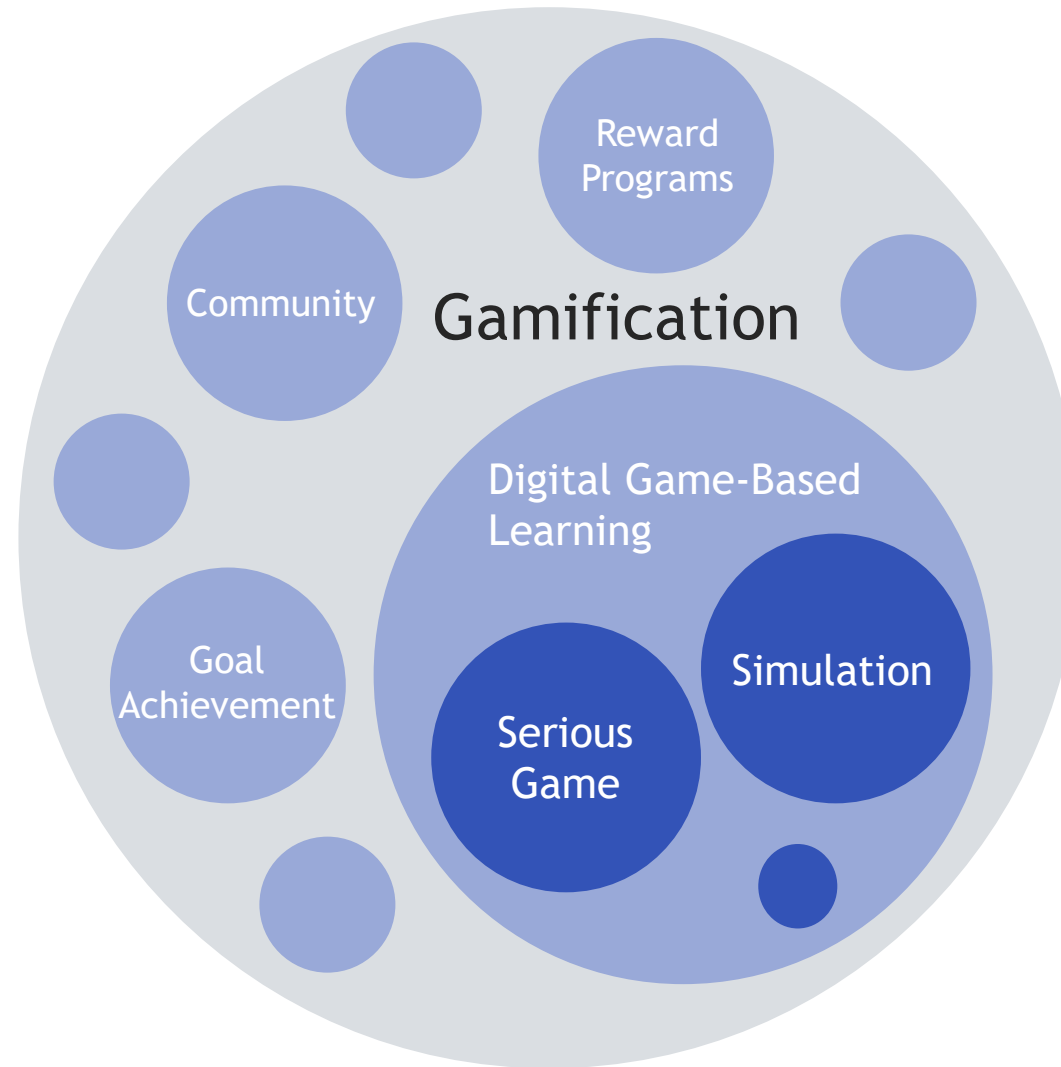
Digital Game-Based Learning

Introduction

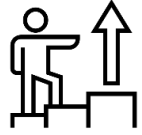


Dr. David Schmocker
Dr. Benjamin Wilding
Roland Schläfli
Anja Zraggen

Gamification



Why Game-Based Learning?



Experience as main driver for learning



Immediate feedback



Learning effects



Safe environment



Simplification of complex topics

How does Game-Based Learning Work?

Effects paths of Serious Games and Simulations (Mayer (2011); Wouters et al. (2013)):



- **Cognitive path:** Enhanced cognitive activation and versatile approach to learning content



- **Motivational path:** Promotion of intrinsic motivation, leading to longer and more intensive engagement with learning content

Effects (Mayer (2011); Wouters et al. (2013)):



- **Cognitive effects:** Increased acquisition of declarative and procedural knowledge



- **Motivational effects:** Increased interest and target focus, experience of one's own competences, satisfaction of motivational needs

Key Takeaways

1

Game-Based Learning is a growing field of interest with a potential of supporting teaching, improving learning, and making the entire learning process more engaging.

2

Simulations and serious games can be used for such educational purposes. Whereas simulations represent a simplified real life situation, serious games can be realistic but also seek to educate in a more entertaining manner.

3

Game-Based Learning works because content is learned and retained more easily due to improved engagement with the learning matter and because intrinsic motivation is fostered by the gamified approach.