Games-based Learning and Technology (MA)

Aim of training

Aim of the study program:

In recent years, digital games have gained great popularity in the society and assumed an important role in children's and adolescents' lives. These phenomena increasingly require educators to address the challenges and opportunities of game-based learning. This course is designed to help education students develop an understanding of the potential role of games and gaming for learning in the digital age. Students will explore the trends in various game designs, cultures and genres in the context of both educational and commercial games as well as examine the educational value of these games with particular focus on the pedagogical, curricular and individual needs of learners.

Expected learning outcomes and related competencies

Knowledge:

On successful completion of this course, students will:

- understand the basic features, terminology, history and taxonomy of computer-based games and gaming applications
- recognize the relationships between games, media-literacy, information fluency and digital identity

The completion of the course contributes to building the following aspects of professional knowledge:

- Has knowledge of the latest results of research in education science and its neighbouring fields and the relevant pedagogical innovations; and can analyse and interpret them critically.
- Has deep knowledge of scientific theories of learning, the strategies and methods of learning and the methods of supporting learning and teaching. Understands the role of the various learning spaces and environments in lifelong learning and learning in all areas of life and culture.

Skills:

By the end of the course, students will be able to:

- discuss the relationships between games, media-literacy, information fluency and digital identity
- identify and evaluate a wide range of games and game environments for various learning needs and contexts, through direct experience and immersion
- critically appraise current trends and research in game-based learning
- contribute to ongoing professional dialogue about game-based learning education

The completion of the course contributes to acquiring the following professional skills:

- Is able to make choices from relevant viewpoints while gathering information about the field of education science and its neighbouring disciplines using national and international databases; and can independently use and apply this information in work.
- Is able to compare research results with pedagogical practice.

- Is able to formulate practical implementation proposals.
- Is able to prepare professional materials based on independently chosen aspects, to present and analyse research results with objectivity, to write shorter professional texts independently.

Attitude:

Students will develop:

- critical, creative and reflective attitudes towards game-based learning

The completion of the course contributes to development of the following professional attitudes:

- Considers important the social scientist perspective in his/her professional identity, is open towards the interdisciplinary approach of education science.
- Has professionally established critical approach and committed to professional analysis based on values and knowledge.
- Approaches connections of theory and practice with evaluative and interpretative reflectivity. Formulates relevant professional criticism, explicates his/her opinion convincingly and clearly, can argue in professional debates.
- In professional relationships represents his/her professional values and believes and argues to defend them.

Autonomy and responsibility

The completion of the course contributes to the following areas of professional autonomy and responsibility:

- Is able to work independently and with responsibility.
- Takes the proactive role in making phenomena understood, encouraging responsible thinking and applies a scientific-professional viewpoint in his/her decisions and actions.
- Makes individual decisions based on professional opinion, and prioritizes delivering opinion and acting based on research.
- Is a reliable professional partner in various professional collaborations, can both lead and follow effectively in cooperation.

Main topics

Main contents

1. Principles and theories of game-based learning
2. Digital games, narrative and gameplay
3. The characteristics of effective digital game media
4. Information behaviour and knowledge construction in game environments
5. Pedagogical affordances of digital games
6. Implementing digital games in the learning environment

Planned teaching and learning activities

The course is designed to encourage learning through authentic tasks and activities, opportunities to collaborate with peers, thought-provoking readings, inquiry, reflection and

analysis culminating in assessment activities which the demonstrate application of new knowledge and understanding for professional practice

Evaluation

Requirements, type and aspects of evaluation

Each of the following assignments will be given a letter grade and weighted as follows:

Online reflective journal Task 1 – (10%)

Online reflective journal Task 2 – (10%)

Gameplay and critical review of a game – (40%)

The development and presentation of a game-based learning event – (40%)

Course grades:

5 (100-90%),

4 (90-80%),

3 (80-70%),

2 (70-60%),

1 (below 60%)

Reading

Required reading

Tobias S., Fletcher J.D., Wind A.P. (2014) Game-Based Learning. In: Spector J., Merrill M., Elen J., Bishop M. (eds) *Handbook of Research on Educational Communications and Technology*. Springer, New York, NY.

Young, M., & Slota, S. (2017). *Exploding the castle: Rethinking how video games and game mechanics can shape the future of education (Psychological perspectives on contemporary educational issues)*. Charlotte, North Carolina: Information Age Publishing.