



## 1<sup>st</sup> workshop – Game Based Learning and unplugged activities

The first workshop entitled “Game based learning and unplugged activities” was held at the University of Rijeka, Department of Informatics on 5<sup>th</sup> and 6<sup>th</sup> of April 2018. The Faculty of Teacher Education gathered focus group of 24 junior grade teachers from 13 primary schools with the help of Education and Teacher Training Agency (AZOO). Participation in the workshops will represent a form of professional development for the teachers.

The goal of the first workshop was to introduce the participants to the concepts and examples of Game Based Learning and unplugged activities as well as tools for creating content for unplugged activities and designing learning scenarios.

The main learning outcomes of the workshop were:

- describe principles of Game Based Learning,
- use Web 2.0 tools for creating content for unplugged activities,
- create learning scenarios in order to develop innovative ideas for carrying out unplugged activities.

The workshop was conducted by Nataša Hoić-Božić, Martina Holenko Dlab and Ivona Franković from the University of Rijeka, Department of Informatics, Jasminka Mezak, Petra Pejić Papak and Darko Lončarić from the Faculty of Teacher Education, University of Rijeka, Viktoria Humal from Tallinn University, Jože Rugelj, Mateja Bevčič and Anja Luštek from the University of Ljubljana, Daniela Tuparova and Ivanichka Nestorova from South-West University Neofit Rilski.

In the introductory session the leader of the GLAT project from UNIRI welcomed workshop participants, presented the main information about the project and introduced project members. She also explained the concepts of algorithmic thinking, computational thinking and problem solving as well as presented planned activities for participants. Afterwards, all the participants briefly presented the school they come from and their motivation for participating in the workshop. They all share the desire to acquire new knowledge that will enable them to keep up with their students and with the new trends in education.



During the first session, teachers were introduced to the learning management system MoD and provided with access to the e-course "Games for Learning Algorithmic Thinking". Within this e-course, teachers will be able to access all learning materials, communicate with other project members, submit created learning scenarios, and share their impressions regarding implementation of learning scenarios in classroom with other participants.

Teachers also participated in the survey that was conducted in order to determine to which extent the teachers are familiar with certain concepts, teaching and learning methods and tools.





# Games for Learning Algorithmic Thinking



In the second workshop session, teachers attended lectures conducted by the experts from UL during which they were introduced to the concepts of Game Based Learning. Learners explored and analysed the examples of simple serious games with the topics from different school subjects in order to be able to point out typical characteristics of games and select suitable games for integration into learning process.

Next workshop sessions held by SWU and UF experts were about unplugged activities for algorithmic thinking. Teachers learned what unplugged activities were and how to use them in classroom. They also participated in individual and group activities and analysed examples of games and unplugged activities for different school subjects (e.g. "Walking through the maze", "Song algorithm", "Find the words in the grid") as well as real – life algorithms (e.g. "Make a sandwich", "Seed the plants", "Clean teeth"). Through practical part of the sessions teachers learned how to use Web 2.0 tools Canva and Sketchpad for creating materials for unplugged activities.

The first day of the workshop was concluded with the group work during which teachers working in teams designed their own examples of unplugged activities for different school subjects by using presented Web 2.0 tools and previously prepared templates. On the second day of the workshop, teachers were introduced to the concept of *learning scenario*. Experts from UF explained how to design learning scenarios and presented the examples of scenarios with games and unplugged activities. Teachers started to use written forms for preparing the learning scenarios, but they also had the opportunity to try out the authoring tool LePlanner (introduced by TU) for visualising learning scenarios in graphical forms.



In the last part of the workshop, participants started to apply newly acquired knowledge through the development of their own learning scenarios. Their task was to design a learning scenario that include unplugged activities which encourage creativity, logical thinking, and problem-solving skills. Teachers could choose any school subject (e.g. mathematics, nature and society, Croatian) and lesson within the subject as well as unplugged activity that promotes algorithmic way of thinking.

In the following weeks, teachers will continue to design learning scenarios with the help of online mentoring by the GLAT project experts. Completed versions of the scenarios will be reviewed by the experts and the final refined versions will be implemented in the classrooms by the teachers.

The second workshop on the use of online quizzes and logical tasks to encourage computational thinking will be held on 28 and 29 August 2018.

