Agile Demonstrator gameplay- Game scenarios for agile activities

Activity 1- Scenario: Learning scenario design

Learning Objective

This activity aims at familiarizing higher- education students with the agile process by designing a learning scenario. The player works as a teacher. The player has to apply several types of pedagogical activities according to each purpose. Students improve agile skills, organizational ones, critical thinking and learn an effective use of agile for a learning plan.

Basic guidelines for instructors:

1. Introduce the specific pedagogical activities
2. Let the students explain the necessity of a learning plan
3. Let the students suggest ideas about the criteria of sorting

Suggested collaborative activity	*Suggested tasks for designing a learning plan*
"You are a teacher. Create your learning plans and organize several pedagogical activities according to each purpose. Sort and sequence the objects to optimize the previous plans."	1. Separate the useful from the useless items 2. Sort items so as to reach them easily – Set frequently used items closer one another 3. Clean on a regular basis to keep them organized 4. Repeat steps 1,2,3 keep it sorted 5. Apply in different circumstances (not used)
Key concepts for succeeding	*Suggested questions for discussion*
1. Find the correct object 2. Deal with it quickly	1. What's the two key concepts of the game? 2. How can you explain the procedure of designing learning scenarios? 3. Does the level of difficulty decrease when applying the agile process?

Agile Demonstrator gameplay- Game scenarios for agile activities

Activity 2- Scenario: Constructing a university campus

Learning Objective

This activity aims at familiarizing higher- education students with the agile process by constructing a university campus. The player works as a civil engineer. The player has to discover the appropriate features that can make a university campus attractive. Students improve agile skills, organizational ones, critical thinking and learn an effective use of agile for constructing a university campus that meets exactly the scholars' needs.

Basic guidelines for instructors:

1. Introduce university campus and its necessity
2. Explain why the campus should be attractive and what it should contain
3. Introduce the civil engineering as far as it concerns the campus construction
4. Introduce the SCRUM procedures and the SCRUM roles of a team
5. Let the students suggest ideas about the criteria of an innovative campus-guidelines: structures, facilities, green areas, decoration, energy, simulators

Suggested collaborative activity	*Suggested guidelines for constructing a successful university campus*
"You are a civil engineer and you have to construct the most attractive university campus. Generate ideas and apply agile technique."	1. Decide about the structures and the green areas 2. Create a welcoming environment at the least expected places (e.g. staircase, lobby, entrance etc.) 3. Enable flexibility of the places (Let scholars change the layout of the furniture according to their needs) 4. Choose the most attractive facilities (swimming pool, tennis court, basketball field, etc.) 5. Promote recycling and alternative sources of energy 6. Create smarter academic areas (community room, planetarium) 7. Keep an eye on the future (simulating areas) 8. Maintain the facilities
Key concepts for succeeding	*Suggested questions for discussion*
1. Find the feature 2. Decide whether to keep it or not 3. Adjust the already chosen features to match the new and repeat 1,2,3	1. What's the three key concepts of the game? 2. How can you explain the agile technique? 3. Does the level of difficulty decrease when applying the agile process?

Additional suggested activities for agile

Dice of Debt- Demonstrator gameplay- Game scenarios for agile activities

Activity 1- Scenario: Developing a website to support the tourism in a city

Learning Objective

This activity aims at familiarizing higher- education students with the agile processes. More specifically, the student has to understand the agile principles and to apply them by developing a website to support the tourism of a city. Students improve their agile skills, creativity, critical thinking and entrepreneurial skills, as well.

Basic guidelines for instructors:

1. Introduce the tourism of a city
2. Let the students explain the necessity of a website that promotes the city
3. Let the students suggest ideas about local sightseeing, local dishes, local products, etc.
4. Let the students explain the necessity of changing the website over and over again, by optimizing it and adding new information

Suggested collaborative activity	Suggested tasks for developing a website to support tourism of a city
"You live in a city and want to develop a website to promote the place you live. Start with a code that is easy to implement, instead of applying the best solution. Then discuss with your team and make changes. Decide whether you'll invest some of the production dices to help alleviate the burden of technical debt or not. "	1. Think of the big picture of the website and start its development 2. Use easily-implemented code instead of the best solution 3. Add the local sightseeing 4. Decide if you'll invest on them 5. Add the local dishes 6. Decide if you'll invest on them 7. Add the local products 8. Decide if you'll invest on them 9. Keep optimizing the website
Key concepts for succeeding	*Suggested questions for discussion*
1. Find a feature of your city 2. Decide if you'll invest on it or not	1. What's the two key concepts of the game? 2. How can you explain the procedure of developing a website? 3. Is the result of the website satisfactory? 4. How can you understand if you invest properly?

Scrum Game- Demonstrator gameplay- Game scenarios for agile activities

Activity 1- Scenario: Developing an application for smartphones which reminds the user to take medicines

Learning Objective

This activity aims at familiarizing higher- education students with the agile processes. More specifically, the student has to understand the agile principles and to apply them by developing an application for smartphones which reminds the user to take medicines. The goal of the game is to simulate every aspect of the SCRUM process learned in theory. In this case, it involves the use of a digital SCRUM management tool. Students improve their agile skills, creativity, critical thinking and entrepreneurial skills, as well.

Basic guidelines for instructors:

1. Introduce the existence of illnesses and the necessity of taking medicines to eliminate or control them
2. Introduce the SCRUM procedures and the SCRUM roles of a team
3. Let the students explain the necessity of an app that will remind its user to take medicines
4. Let the students suggest ideas about diseases that requires everyday medicines
5. Let the students explain the necessity of changing the dose in case something unexpected comes up

Suggested collaborative activity	*Suggested tasks for developing an app for smartphones that reminds its user to take medicines*

"You work for a programming team. Develop an app for smartphones that will remind its users to take their medicines. Simulate the whole SCRUM process "	1. Define a product owner, a scrum master and a team member
	2. Define tasks and prioritize tasks- assign tasks to everyone
	3. Arrange daily scrum in which you'll discuss about:
	    a. The completed tasks
	    b. Tasks everyone will complete by the next daily scrum
	    c. Obstacles that make things complicated
	4. Repeat the process until the final deliverable is ready

Key concepts for succeeding	*Suggested questions for discussion*
1. Define- prioritize- adjust- accept 2. Take advantage of the scrum process	1. What's the two key concepts of the game? 2. How can you explain the procedure of a daily scrum? 3. Can you explain the roles of the scrum? 4. How can the scrum process make things work properly?

Scrum Game- Demonstrator gameplay- Game scenarios for agile activities

Activity 2- Scenario: The development of automation mechanisms for a house

Learning Objective

This activity aims at familiarizing higher- education students with the agile processes. More specifically, the student has to understand the agile principles and to apply them by the development of automation mechanisms for a house. The goal of the game is to simulate every aspect of the SCRUM process learned in theory. In this case, it involves the use of a digital SCRUM management tool. Students improve their agile skills, creativity, critical thinking and entrepreneurial skills, as well.

Basic guidelines for instructors:

1. Introduce the mechanisms of a house in general
2. Specify some of the mechanisms that can be automated
3. Let the students explain the necessity of automation mechanisms when they are not at home

Suggested collaborative activity	Suggested tasks for the development of automation mechanisms for a house

"You work for a company and they ask you to develop automation mechanisms for a house. Suggest ideas and apply SCRUM methodology."	1. Define a product owner, a scrum master and a team member
	2. Define tasks and prioritize tasks- assign tasks to everyone
	3. Arrange daily scrum in which you'll discuss about:
	  a. The completed tasks
	  b. Tasks everyone will complete by the next daily scrum
	  c. Obstacles that make things complicated
	4. Repeat the process until the final deliverable is ready

Key concepts for succeeding	Suggested questions for discussion
1. Define- prioritize- adjust- accept 2. Take advantage of the scrum process	1. What's the two key concepts of the game? 2. How can you explain the procedure of a daily scrum? 3. Can you explain the roles of the scrum? 4. How can the scrum process make things work properly?

Scrum Game- Demonstrator gameplay- Game scenarios for agile activities

Activity 3- Scenario: The development of solutions for a smart city

Learning Objective

This activity aims at familiarizing higher- education students with the agile processes. More specifically, the student has to understand the agile principles and to apply them by the development of solutions for a smart city. The goal of the game is to simulate every aspect of the SCRUM process learned in theory. In this case, it involves the use of a digital SCRUM management tool. Students improve their agile skills, creativity, critical thinking and entrepreneurial skills, as well.

Basic guidelines for instructors:

4. Introduce the mechanisms of a city in general
5. Specify some of the mechanisms that can be smart
6. Let the students suggest ideas about smart solutions of a city

Suggested collaborative activity	*Suggested tasks for the development of solutions for a smart city*

"You work for a company and they ask you to provide solutions for a smart city. Suggest ideas and apply SCRUM methodology."	1. Define a product owner, a scrum master and a team member
	2. Define tasks and prioritize tasks- assign tasks to everyone
	3. Arrange daily scrum in which you'll discuss about:
	   a. The completed tasks
	   b. Tasks everyone will complete by the next daily scrum
	   c. Obstacles that make things complicated
	4. Repeat the process until the final deliverable is ready

Key concepts for succeeding	*Suggested questions for discussion*
1. Define- prioritize- adjust- accept 2. Take advantage of the scrum process	1. What's the two key concepts of the game? 2. How can you explain the procedure of a daily scrum? 3. Can you explain the roles of the scrum? 4. How can the scrum process make things work properly?