

THE ROLE OF MANAGEMENT SIMULATION GAMES IN HIGHER EDUCATION: EXPERIENCE OF VIDZEME UNIVERSITY OF APPLIED SCIENCE

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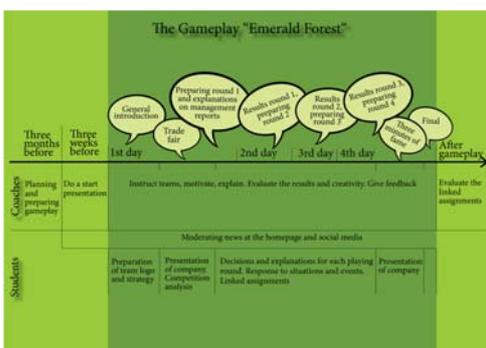
Introduction

Modern, innovative, effective and interactive study methods are some of the important criteria for qualitative higher education. There are several methods and tools available which help students to prepare for working in business environment and becoming entrepreneurs. One of the most effective toolsets is management simulation games. Management simulation games are oriented towards active and experiential learning, and include such elements as interactivity [1], [2], competition [1], [3], [4], collaboration [2], [5] and challenges [6]. Simulation games develop different skills and competencies, particularly communication, teamwork and decision making [3], [6], [7], [8].

Management Game “Emerald Forest”

The management game ‘Emerald Forest’ is an internet-based simulation game with strong links to social media. The game is based on an imaginary holiday park called ‘Emerald Forest’. This is a rental bungalow park and is a little bit outdated [11]. Students are invited to take over the management of the park and make the park successful again, as it used to be 20 years ago [11]. Participants join the game in teams and are tasked with running the park, managing levels of investments, costs, marketing and strategy in addition to other aspects of management. Students are taking decisions and competing with other teams in a highly competitive market in which there are always competitors and alternatives [11]. During the game participants encounter real life situations and problems, e.g. participating in trade fair, dealing with unexpected crisis situations, etc. The game is assessed on two categories: best performing team and most creative team.

The game is supported by an easy accessible game platform (<http://www.emerald-forest.eu>) where all content is stored, decisions are uploaded, results are to be found and most of the possibilities of web 2.0 are embedded [11]. The game starts with introducing students to objectives, rules of the game and organisation as well as game platform and other documentation.



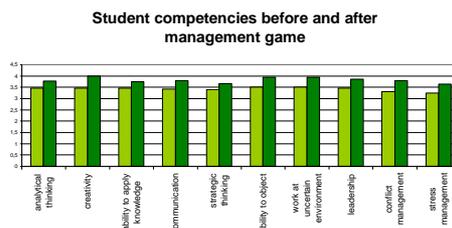
Implementation of the management game

Implementation of the management game at Vidzeme University of Applied Sciences started in 2008, when game developers and coaches from NHTV Breda University of Applied Sciences first time conducted “Emerald Forest” in Latvia. Since 2008, the management game has taken place four times.

Starting from October 2010, ‘Emerald Forest’ is part of the Leonardo da Vinci Transfer of Innovation project “Teacher Training to Improve Attractiveness and Quality of Management Education through the Simulation Tool ‘Emerald Forest’ (MST-EF)”. Universities from six countries take part in this project. The international aspect of this project is very important because of the knowledge transfer and mutual learning amongst academic staff. European contest for the MST-EF project will take place in June 2012 when students from all six universities participated in the management game.

Evaluation of the experience

In order to determine whether the management game increases student competencies and if so – what kind of competencies it develops, the quasi-experiment was carried out. Students were asked to perform a self-assessment of the statements about competencies both before the management game and then immediately after. The results indicated a significant difference in students’ self-evaluations for most competencies ($p=0,01$) – scores after the management game were higher for the following competencies: ability to apply knowledge, analytical thinking, strategic thinking, ability to object, creativity, leadership, communication, conflict management, work at uncertain environment and stress management. These results confirm that the management game has an impact on developing competencies.



There are several educational benefits from running the management game ‘Emerald Forest’:

- ❖ integrating theory and practice;
- ❖ integrating and using knowledge and skills mastered in different study courses;
- ❖ auditing and evaluating the level of knowledge and skills – both from the perspective of students and academic staff;
- ❖ transferring knowledge amongst students from different specialities;
- ❖ developing and improving competencies;
- ❖ improving collaboration between students, graduate students, academic staff and entrepreneurs.

The management game can be implemented with the following objectives:

- ❖ as a separate study course (3 ECTS) for senior students;
- ❖ as part of a module integrated in the study course;
- ❖ as an introductory course for bringing to light the necessary knowledge and skills, as well as for study motivation;
- ❖ as an evaluation course for final year students;
- ❖ as a career development tool which offers an insight into entrepreneurship;
- ❖ as a professional training for entrepreneurs as a part of their life long learning process.

Conclusion

Chang, Peng & Chao describe four principles to follow when integrating simulation games into the curriculum: challenges, competition, cooperation and authentic tasks [6]. The management game ‘Emerald Forest’ satisfies all of them – the game is based on a real life environment, there is a competition between teams and co-operation between students from different specialities, as well as additional challenges that are introduced by game coaches. Positive feedback has been gathered from all the game’s participants – students, academic staff and entrepreneurs – who have all commended the game’s interdisciplinary and experience-based approach. International cooperation with the game’s founders from NHTV Breda University of Applied Sciences is very important. This co-operation facilitates the exchange of experiences and the development of pedagogical skills of academic staff. There are many great possibilities to continue developing the management simulation game as an effective learning and teaching method.

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