Play projects

Approach	Play projects
Introduction	
Project-based learning is a dynamic approach to teaching in which students explore real-world problems and challenges, simultaneously developing 21st Century skills while working in a small collaborative group. Play projects is a teaching approach where learning is affected via problem solving. Play projects are most successful in practical classes. Informational, research, creative and applied projects can be done within this format. Play projects allow students to reflect upon their own ideas and opinions, and make decisions that affect project outcomes and the learning process in general. The final product results in high quality, authentic products and presentations. Suitable for small and large groups.	
Aim	To enhance problem-solving potential with creative, analytical and critical thinking skills
Target group	First and second year students.
Intended learning outcomes	
• effectively solve problems/complex professional tasks leading to appropriate and profitable decisions • deductive reasoning drawing conclusions from given information.	
Description	
In a semester-long research project for a course, the teaching staff member establishes the research problem and assigns students distinct roles within their groups: one student is responsible for initiating and sustaining communication with the rest of the group, another with coordinating schedules and organising meetings, another with recording ideas generated and decisions made at meetings, and a fourth with keeping the group on task and cracking the whip when deadlines are approaching. The instructor rotates students through these roles, so that they each get practice performing each function. Students are split into two groups. The groups compete against one another to design a product/ to solve a problem etc. by applying given science principles and working within budgetary and material constraints. The fun and intensity of a public competition encourages the team to work closely together to create the best design/solution possible. At the end of the semester students publicly defend the appropriate and profitable developed solutions.	
Preparation	Define a research problem.
Resources and equipment	Not necessary.
Success factors	To work successfully in groups, students need to learn how to work with others to do things they might only know how to do individually, for example to assess the nature and difficulty of a task, break the task down into steps or stages, plan a strategy, manage time. Students also need to know how to handle issues that only arise in groups, for example, to explain their ideas to others, listen to alternative ideas and perspectives, reach consensus, delegate

	responsibilities, coordinate efforts, resolve conflicts, integrate the contributions of multiple team members.
Advantages	Provides high activity. Design skills are developed and the specialists will be more flexible and efficient in solving complex professional tasks in the future.
Disadvantages	Time consuming. May be difficult to bring all group thoughts together in agreement.
Additional information	This article by Yakovleva, O.N., Yakovlev, E.V. in 2016[i] provides information about interactive methods of training, which encourage interest in the profession and promote the efficient acquisition of training materials On this link hosted by the Eberly Center at Carnegie Mellon University you will find Information about best practices for designing group projects and successful work in groups.