TACIT Knowledge Alliance

Funded by the Erasmus+ Programme of the European Union

Project Number:
562459-EPP-1-2015-1-UK-EPPKA2-KA
Project Duration:
January 2016 - December 2018

TACIT Methods – Teaching Material

Method title: Project-Based Learning (PBL)
Workshop size: 25-30 participants
Trainer(s): Dr. Claudia Lehmann, Tim Mosig

Content

This module introduces learners how to use projects for acquiring, train, and further develop particular skills important to different fields of work but innovation and entrepreneurship topics in particular. The most important aspects the method aims to develop are: critical thinking, research, work ethic, collaboration, and communication. All these aspects can be trained by using different but appropriate methods the participants should choose by themselves after proper research. The module is designed in a way the participants have to act almost completely independent and autonomously, which makes PBL a self-determined learning approach fostering creativity and a deep understanding of the project topic as well as skills to be acquired. The method consists of different phases and takes several weeks, months, or even longer depending on topic, its complexity, and the desired outcomes. After defining a specific project task or question the projects aims to answer, the group of participants has to design and plan the entire project. Thereby, different aspects have to be considered as those exemplary are:

- Resource and budget planning including financial aspects but also the involvement of other departments and their expertise,
- Role allocation whereby all project participants receive a particular role and task within the project as for example project leader, a responsible person for the identification of proper methods to face the upcoming projects tasks and the related skill development,
- Desired/expected project outputs on individual, content, team/company level, knowledge transfer, and the skills which are supposed to be developed in the end of the project,
- Implementation of the outcomes, and
- Evaluation criteria for a successful project.

In this project plan also the format of the desired outcome needs to be defined as well as milestones for presenting interim results to the supervising project or department head. The supervising person is evaluating the progress and the individual participation and development of the project participants according to the previously defined criteria. A supporting tool for an appropriate and meaningful evaluation is peer evaluation where the participants themselves evaluate each other.

The values the method provides and which makes it different to normal project work are the focus on skills development. These skills are meaningful especially to innovation and entrepreneurship in terms of reliable research as the base for everything coming afterwards. Scientific approaches for this research ensure a profound knowledge about the topic given in the project.

Educational Objectives
After successfully completing this module, the participant will have acquired the following learning outcomes:

Knowledge/Understanding:
Participants

- will understand the complexities of multidisciplinary innovation and entrepreneurship projects.
- will understand how complex topics can be faced by a structured project approach using rich range of different methods.
- will understand how to use a variety of method to reach particular desired outcomes by training the methods themselves.

Abilities/Skills:
Participants

- will develop new ideas that address particular innovation and entrepreneurship challenges.
- will creatively reflect different perspectives and aspects of a topics by critical thinking.
- will acquire a self-defined range skills by compiling self-chosen methods to train and develop them.

Competencies:
Participants

- will develop new views and perspectives on the topic chosen for the project.
- will be enabled to reflect questions and results critically from different angles.
- will collaborate interdisciplinary with different team members and other departments to achieve the targets set for the project.

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Method Implementation

1. Short lecture about the structure and targets of PBL
2. Introduction to the project plan with its single field to be filled out
3. Start of problem identification process
4. Design and planning process of the entire project by the team using the project plan introduced in step two
5. Realizing the project and pitching interim and final results at the milestones set in project plan
6. Evaluating and reflecting the results and the performance of participants continuously during the project and in the end

Materials used to deliver the method

Type	Title	Availability
Instructions	Project-Based Learning Instructions	Presented at the Workshop/Project Kick-Off
Project Plan	Project Plan PBL	Handed out during Workshop/Project Kick-Off

Materials required delivering the workshop

Type	Amount	Purpose/location

The materials required depend on the topic of the project as well as on the approaches chosen to develop the skills defined in the project plan. The planning of resources is one part of the project plan the project team has to discuss about and determine.

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Preliminary reading to understand the method (to be send before the workshop)

Marx, R. W., Blumenfeld, P. C., Krajcik, J. S., Blunk, M., Crawford, B., Kelley, B., & Meyer, K. M. (1994). Enacting project-based science: Experiences of four middle grade teachers. Elementary School Journal. 94(5): p. 518.

Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. Educational Psychologist, 26 (3 & 4), 369-398.

Lasauskiene, J., & Rauduvaite, A. (2015). Project-Based Learning at University: Teaching Experiences of Lecturers. Procedia - Social and Behavioral Sciences, 197, 788–792. https://doi.org/10.1016/j.sbspro.2015.07.182chologist, 26 (3 & 4), 369-398.

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