

NAWA “Competent student – experienced graduate”



Figure 1 Opening ceremony at TBU in Zlín



Figure 2 Reunited of NAWA students by a talk about ideas of Tomas Bata

Realization of the workshop from the point of view of Czech students

1. Project Management

Goals:

- The participant understands principle of project management
- The participant understands the reasons why a project is necessary

- The participant recognises and is able to apply methods and analyzes to set a business plan
- The participant is able to present outcome of the project proposal

Activities and Tasks:

- Workshop “Project management” - students in teams trying to create fully functional business proposal witch applying methods which they have learned about.
- Present final outcome before “the investors” to get funding.

Outcome :

- Fulfilled exercises related to creating a business proposal/plan for our business ideas?
- Gained knowledge about the theory of creating a business proposal/plan.

Workshop agenda:

1. Part - Proposal

- 1) **WBS:** Breaking work into smaller tasks is a common productivity technique used to make the work more manageable and approachable. For projects, the Work Breakdown Structure (WBS) is the tool that utilizes this technique and is one of the most important project management documents. It singlehandedly integrates scope, cost and schedule baselines ensuring that project plans are in alignment.
- 2) **SMART:** The SMART in SMART goals stands for Specific, Measurable, Achievable, Relevant, and Time-Bound. Defining these parameters as they pertain to your goal helps ensure that your objectives are attainable within a certain time frame
- 3) **Risk analysis:** is the process of identifying and analyzing potential issues that could negatively impact key business initiatives or projects. This process is done in order to help organizations avoid or mitigate those risks.
- 4) **Investment appraisal:** is the analysis done to consider the profitability of an investment over the life of an asset alongside considerations of affordability and strategic fit.

Project funding is the means by which the money required to undertake a project, programme or portfolio is secured and then made available as required. Funding for standalone projects may be via a single source or through multiple investors.

2. Part - Market Research

Market research is the process of determining the viability of a new service or product through research conducted directly with potential customers. Market research allows a company to discover the target market and get opinions and other feedback from consumers about their interest in the product or service.

Workshop agenda:

1. **Definition of problem** - our work on the project began by dividing the members into teams. In total there were 9 teams and every one team had to come to the market with an original idea - something that would be necessary for potential customers and so far didn't appear at the market. So firstly we defined our problem and tried to think about some new project which can break into the market space.

2. **Project goal** - SMART: The next step in working on the project was the SMART method. The SMART in SMART goals stands for Specific, Measurable, Achievable, Relevant, and Time-Bound. Defining these parameters as they pertain to your goal helps ensure that your objectives are attainable within a certain time frame. If you want to start to create a new project, you should define these objectives, if you require the project to be successful.
3. **Market research** - The follow up step was doing market research. Market research is the process of determining the viability of a new service or product through research conducted directly with potential customers. Market research allows a company to discover the target market and get opinions and other feedback from consumers about their interest in the product or service. Competition must also be taken into account, because, of course, we want to differentiate ourselves from the competition and we don't want the competition to engulf us.
4. **Promotion** - As a new project, of course, we want to be visible on the market, and that is what promotion is for. In terms of marketing, a sales promotion entails the features - via advertising or a discounted price - of a particular product or service. It can raise awareness of your services, facilities, project or event in the community. We had to set aside a promotion budget for each month and decide what marketing tools to use.
5. **Financing of the project** - Project funding is the means by which the money required to undertake a project, programme or portfolio is secured and then made available as required. Funding for standalone projects may be via a single source or through multiple investors. Starting with an idea of the project is nice, but how to finance it? What about costs, prices for a product/service and budget of the project as well? How to manage it all? Investment appraisal is the analysis done to consider the profitability of an investment over the life of an asset alongside considerations of affordability and strategic fit. We also had to consider, if we will need a loan or our own finances will be enough for running a project.
6. **Risk analysis of the project** - Risk analysis is the process of identifying and analyzing potential issues that could negatively impact key business initiatives or projects. This process is done in order to help organizations avoid or mitigate those risks. Risk analysis is a useful tool to use in the decision-making process. It allows us to identify the potential benefits and detriments of each option, evaluate the likelihood of problems occurring and decide whether to move forward considering such risks. Once we have identified potential risks, we can determine how to manage them and even develop a comprehensive preventative plan.

		Consequence				
		Negligible 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	5 Almost certain	Moderate 5	High 10	Extreme 15	Extreme 20	Extreme 25
	4 Likely	Moderate 4	High 8	High 12	Extreme 16	Extreme 20
	3 Possible	Low 3	Moderate 6	High 9	High 12	Extreme 15
	2 Unlikely	Low 2	Moderate 4	Moderate 6	High 8	High 10
	1 Rare	Low 1	Low 2	Low 3	Moderate 4	Moderate 5

Figure 3 Risk Matrix

- It reduces the impact of a negative event.
- Evaluates whether there are more benefits to a project than risks before initiation.
- Plans the company's response to emergencies or other adverse events.
- Eliminates risks during a process.

How to perform a risk analysis:

1. Identify the risks
2. Define levels of uncertainty
3. Estimate the impact of uncertainty
 - a. **Risk value = Probability of event x Cost of event**
4. Complete the risk analysis model
5. Analyze the results
6. Implement the solution
 - a. **Plan:** Create a solution for a risk.
 - b. **Do:** Implement the solution on a small scale.
 - c. **Check:** Review the results of the solution on a small scale to ensure its success.
 - d. **Act:** Apply the solution on a large scale. Monitor the progress and make changes as part of the cycle.

7. WBS - Work Breakdown Structure

It is a tool that can be used for projects, programs, and even initiatives to understand the work that has to be done to successfully produce deliverables.

At the top of the work breakdown structure is your final deliverable (in this instance, the construction project). Immediately beneath that is the next WBS level, which are the main project phases required to complete the project. The third and lowest level shows work packages. Most WBS charts have 3 levels, but we can add more depending on the complexity of our projects.

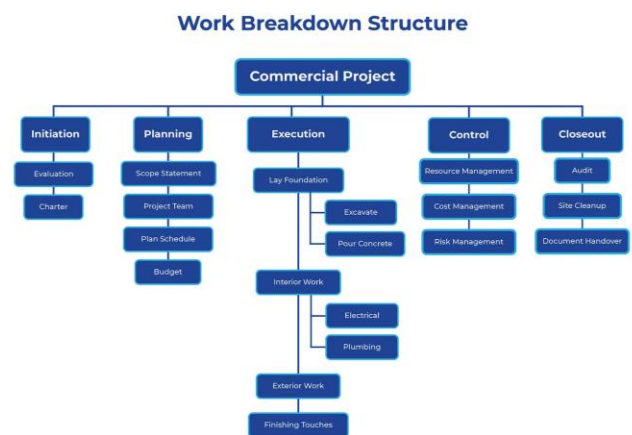


Figure 4 Work Breakdown Structure

WBS has many benefits such as:

- it defines and organizes the work required
- it provides a visual of impacts when deliverables are falling behind
- it can be used to identify communication points
- it can be used to identify potential scope risks if it has a branch that is not well defined
- it provides a proven and repeatable approach to planning projects
- it provides a tool for team brainstorming and collaboration, and therefore an opportunity to engage the team and make them feel invested in the planning

WBS helps us break work into smaller tasks. Which is a common productivity technique used to make the work more manageable and approachable

How to Create a Work Breakdown Structure:

1. Define the Project Scope, Goals and Objectives
2. Identify Project Phases & Control Accounts

3. List Your Project Deliverables
4. Set WBS Levels
5. Create Work Packages
6. Choose Task Owners

3. Part – Presentation

Lastly, each group completed their projects by using skills and techniques from all workshops and presented their ideas to the audience and potential “sponsors”. Thanks to WBS, SMART and other techniques we were able to almost fully understand what it takes to come up with a functional realistic business proposal and also to see problems or projects no matter their origin nor their role in our lives from different perspectives.

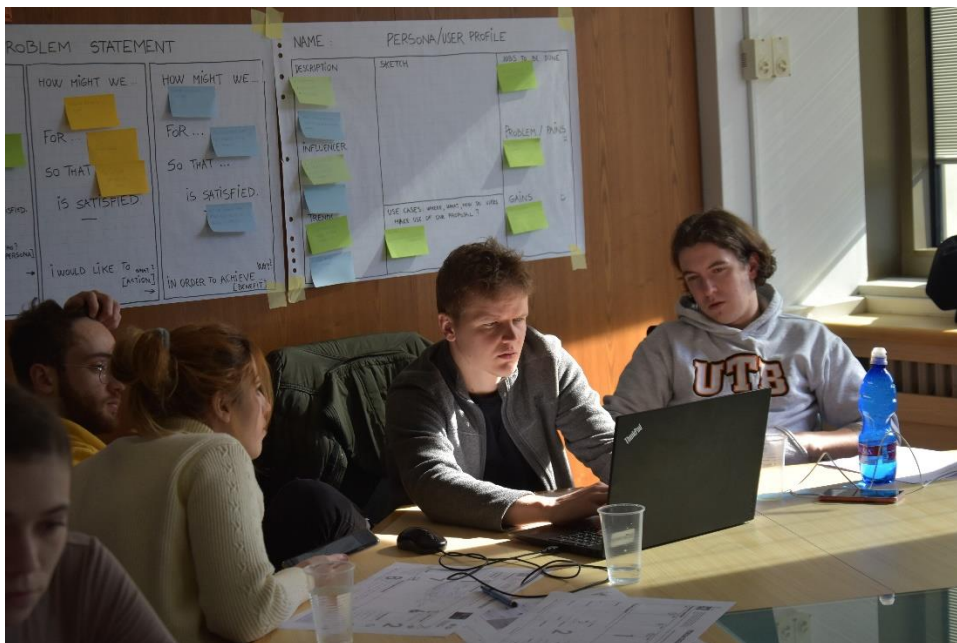


Figure 5 Students work on their projects

2. Methods of Network Analysis

Quantitative Decision-Making Workshop

The quantitative approach to decision-making identifies the best options by analyzing prospective outcomes with data.

Why?

Project management, like operations management, uses a variety of quantitative methodologies when planning, scheduling, forecasting, and monitoring tasks. The quantitative approach's major goal is to make the best decision possible using mathematical and statistical models in a situation where the likelihood of all outcomes is unknown.

Problems must be defined, examined, and solved in a deliberate, rational, systematic, and scientific manner based on data, facts, information, and logic, not on whims and guesses, according to the quantitative approach to decision-making. To put it another way, quantitative approaches (tools or methods) offer the decision-maker a scientific method based on quantitative data for selecting a course of action from a list of options in order to reach the optimal value of a preset

target or goal. The use of numbers, symbols, or mathematical formulae (or expressions) to depict models of reality is a common feature of all forms of quantitative approaches.

When the problem is clearly defined, multiple choices exist, and decision outcomes are easily measurable, a quantitative approach to decision-making gives the best results. Quantitative methods, on the other hand, might become unreliable when many external factors are beyond the decision-control maker's and their likelihood is uncertain.

Quantitative approach techniques, particularly those that use statistical software, offer the advantage of recommending the optimal solution to a problem without even identifying all possible solutions. This function is particularly beneficial in situations where there are a huge number of possible solutions but just a few are worth considering for selection. The decision-making process gets much faster once the problem and conditions have been established.

What we did do?

A set of teamwork methods that use a complex, system approach to solve complex economic, organizational, technological, or other decision-making problems with the help of mathematical modeling in order to arrive at optimal decisions or strategies, i.e. the best from a predetermined goal standpoint.

Taking a systemic approach

Individual elements inside the problem are recognized, and their properties are documented, as are interactions between elements within the system and the system's interactions with its surroundings.

Work in a group

The issue is divided into sociological, economic, technological, and other components. Specialists from these many segments are involved in the problem-solving process, and each uses his or her own technique.

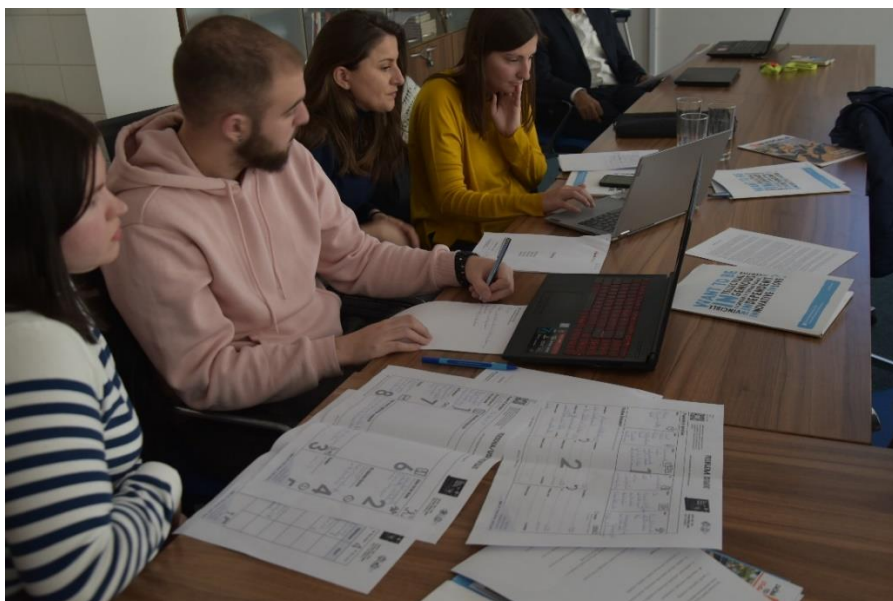


Figure 6 Students work on their projects

Techniques for modeling

Modeling strategies serve as tools for experimentation. A model is widely regarded as a significant simplification.



Figure 7 Students work on their projects

3. Project Life Cycle and Design Process

A project is a combination of different operations with given resources¹ and limited schedule aiming to achieve its clearly defined objectives. Each project needs clear assignments of responsibility among all actors as well as coordination mechanisms, general administration, financial administration and monitoring and evaluation systems. A project organisation, is often formed for the project implementation. Further, project stakeholders, beneficiaries or right-holders and duty-bearers too should be defined clearly.

Although the development cooperation usually aims to provide long-term improvement, the project in itself lasts for a short time. The funding cycle of a project is not usually longer than four years in CSO projects. The results accomplished through the project should be transferred to the responsibility of local stakeholders, who should not be left dependent on the external support once the project is completed.

A project cycle is the life cycle of any project that describes different project stages and separates the planning, implementation and evaluation stages from each other. This allows one to learn and make changes in the project as necessary when the project is ongoing. The Project Life Cycle provides a framework for managing any type of project within a business. Following a project life cycle is critical for any organization. The Project Life Cycle is the standard process by which teams achieve project success.

The Project Phases Involved:

- Phase 1 The Conceptualization Phase
- Phase 2 The Planning Phase
- Phase 3 The Execution Phase
- Phase 4 The Termination Phase

These phases make up the path that takes project from the beginning to the end.

Through the gradual passage of phases of the project management life cycle, we came up with the idea for a project, defined its goals, planned for its execution, and guided it to completion. At the beginning of the creation of our business project, we had to identify a number of questions and find answers to them. Our task was to answer a number of the following questions:

- ✓ What is the problem?
- ✓ Will the development of a project solve that problem?
- ✓ What are the specific goals of the project?
- ✓ Do we have enough resources to create and support the project?

The above questions go to a lower level of detail, and you start asking "how" questions. The main one is "how do we build this solution?"

Next we began to design our objectives, during which we reasoned about the availability of resources and the budget available to start our business. At this stage we considered many potential solutions and narrowed down the options to determine the most efficient and effective way to build. And the main challenge was to answer the question of "how" we would build the best solution. When filling out the data, we used various tables that helped us structure our solutions and not to miss important details. Thus, our reasoning moved into the design phase, where a logical solution turns into a physical one.

Another important point of our project was to draw a portrait of our end client, to describe him, tell about his hobbies, what status he has and who he works for. In order to clearly understand for whom we make the product, whether it will be in demand in the market and what range of people will be interested in it.



Figure 8 Students work on process design with dr. Švirakova

Conclusion

I would like to summarize our topic project life cycle and design process. In the project, each group came up with a different idea, first we set goals for what we want to achieve. We thought about the available resources, the budget we have available for project planning and implementation. We have considered many potential solutions and narrowed the possibilities to determine the most effective way. „How we will do it“ was our main challenge. Another important part occurred in the project when we had to draw a portrait of our potential client, describe him, how he looks like, where he works, how old he is, what does he like and more. This was to make us realize what our segment is. Then we continued and at the end we implemented and presented the project.



Figure 9 Greeting of the Czech team with an invitation to the next workshop in Malta



Figure 10 Closing Ceremony Closing ceremony with submission of certificates