

- Created by** : Ing.Jaromír Skorkovský, CSc., Department of Corporate Economy, Faculty of Economics and Administration, Masaryk University, Brno, Czech Republic
- Created on** : 20.10.2021
- Deadline** : Your work **has to be presented** and argued before an audience (Your colleagues) in the classes (MS TEAMS seminars if online), held in the time assigned by the tutor. The chosen **deadline** is a necessity to hand over related theories and time to write seminar work. The desired deadline is **19.11.2021 (Friday, so you will have 17 working days to write)**, meaning that seminar work will be handed over **19.11.2021** at the latest to subdirectory Seminar Works in MS Teams (Team MPH_AOPR). The uploaded file must have the following form: Name_Surname_UČO_Name of the work_2021mddd (e.g., 20211119)
- Expected extent** : Minimum **12** pages
- Suggestions** : 30 % of the volume might describe the used theories, which will be used as a bridgehead for the practical part of the work. You have to mention a list of used resources at the end of your work. I expect links (relations) from seminar work body to list of resources, meaning to indicate which texts were taken from which literature (mostly internet resources and tuition material)
- The theory used** : It is expected that students will mainly use the Theory of Constraints and related Thinking tools, Critical Chain Methodology, Ishikawa Fishbone Diagram, and Pareto analysis.
- Title Page** : **Name of the student, his e-mail, student number, and their photo, as well as date indicating the handover date of your work!**
- Presentation** : You have to prepare a power-point presentation describing your work concisely. This power-point presentation will be used in your presentation to the audience. I expect that you will perform a **max of 8 minutes**. So try to present the core of your problem with the help of texts as well as with the use of diagrams and related pictures, if any(trees, curves, flowcharts, and so on).
- The first three students will present their seminar work on 22.11.2021 during theoretical session (16:00-17:50), and we will continue the presentation (another three students) during the practical part on 24.11.2021. The following presentation will be on 29.11.2021 and 1.12.2021. The next show is expected on 6.12.2021 and 8.12.2021. Every date will be available for three students. The last two are for four students. The limited-time is because we have to continue after the exhibition with our tuition.
- Statement** : Approved and presented seminar work represents a passport to be accepted for the exam

Name of the work:

Operations Management: seminar work related to Utilization (application) of the Theory of Constraints (TOC), Critical Chain Project Management (CCPM) as a Project Management Methodology based on TOC principles, and Ishikawa FBD linked to Pareto Analysis due to priority of undesirable effect assignment.

Questions that have to be firstly and concisely answered in the seminar work:

- 1.) How would you apply CCPM and TOC tools (e.g., CRT=Current Reality Tree) for your dissertation (writing the dissertation is, in fact, a project)? Can you name the main project risks?
- 2.) Do you know how to diminish (to reduce) these risk factors (to avoid obstacles)? Name at least ten obstacles! **If you do not choose dissertation work as a subject of seminar work, see my comment below.**

TOC and Thinking Tools theory is related to finding the subject of your work.

Furthermore, how to prepare yourself for the creation of a dissertation. It means how to chase all imaginable resources, planning schedule, finding the bottlenecks in some model company you are working with, and decision-related to use the chosen methodology to improve the partial process, personal problems related to the dissertation, and so on.

Comment: To give you **greater flexibility**, you can, instead of the project linked to your dissertation work creation, use any other type of project such as e.g., the task of formation of your brand new start-up company, renovation of the pub (café, confectionary) and so on (see other examples mentioned below). It will be fully upon you to determine what type of businesses and processes you will hypothetically use. Your predecessors have used a project of forming **software houses** to create website pages. The company sells **airline tickets** or tries to solve the problems of existing companies of their parents **exporting natural cosmetics** from Greece. Some attempted to establish a business in the Czech Republic, such as **selling French wines, small travel agencies**, etc. As you can see, the core of the solved problem depends purely on your imagination. You will get some ex-works (see study material and related subdirectory) to help your inspiration.

When specifying your concrete project, you can use it as a helping tool, such as the **Balanced Scorecard methodology** mentioned in OM's introduction. The necessary knowledge is used to control newly established companies' basic and core processes, benefits for customers if processes will be correctly maintained, etc.

It could also be used in a dissertation project creation. It means what knowledge and skills you have to acquire, how to communicate with your mentor, how to write a dissertation (formal aspects), what type of methods will be applied to suggest some improvements, how to protect your data, and so on.

Some examples of your predecessors' seminar works will be uploaded in the subdirectory Seminar work examples in your study material.

Comment : UDE=UnDesirable Effect

UDE examples: *long project duration, projects overrun budget, projects deliver less than full scope, projects overrun schedule, projects have many changes, projects use resources ineffectively, too many conflicts among projects-capacity of used resources, stormy interpersonal relationships, long reaction to requirements, improper evaluation of workers (employee), strict legislation, competitors,...*

So as you see, one part of the seminar work will be a list of UDE, which will be used to construct CRT signaling your root problem (bottleneck).

- 3.) What kind of effects do you expect by possibly using buffers (time buffers) during your thesis's working out (dissertation or other chosen project)? Can you explain what the time buffer is? What is project buffers its penetration? How you can measure reached results (used metrics such as time, resource capacity, costs, goodwill, and so on).
- 4.) Can you specify using Thinking Process Tools Your bottleneck as far as studying processes, writing work, or working on assigned school tasks (by other tutors) is concerned? Create **CRT** (see whole meaning above) and create a list of Undesirable Effects (named by You as mentioned already in clause 1)
- 5.) Create with the use of an already existing set of UDE's Ishikawa fishbone diagram and put some weights meaning numbers specifying the importance of assigned reasons. It was clearly shown in Ishikawa FBD power-point presentation. Based on a designated score set, create a Pareto Lorenz curve (use Excel, please). The principle is also demonstrated in the just mentioned presentation. Specify the most important reasons. Compare with root problem found by use of Current Reality Tree.
- 6.) State your suggestions on improving your dissertation writing (or any other chosen project) and related benefits.

An Excel file used in Pareto analysis diagram creation will be uploaded to the subdirectory **Seminar work examples**.