Design Thinking

Approach	Design Thinking
Introduction	
Design thinking is usually composed of several clear steps: • recognising the background of the problem (research) • gaining insights (defining) • proposing many ideas and solutions and finally deciding on one (ideating) • creating a prototype and trying it with the users (prototyping) • re-iterating/improving and evaluating the product (testing) Design-thinking is essentially a group work whereby the group first decides on the problem/product to be solved/designed. The group consists of all users involved. The aim of the Design Thinking approach applied in higher education is to obtain a balance between academic rigour and practical relevance. Students are designing a solution of the real problem outlined at the beginning of the course. Implementation of the solution is supposed to work and improve the situation. During the process, your role is to facilitate the process and to be a mentor in the first phase, providing a framework and pointing out topics and issues to be considered in specific areas. In the second phase you should act as a coach, stimulating discussions and the production of creative solutions, making connections and monitoring deadlines and outcomes. If a new idea emerges during the process, you should follow the group's expectations bearing in mind that an open approach is always necessary when engaged in design thinking. In this approach, students try to find creative solutions to a specific problem or challenge. The main outcome is a specific solution/project/product addressing those (users) affected by this problem or challenge and considerably improving the situation	
Aim	To support students to design a prototype and implement a solution in real life
Target group	Students of any field of study Teaching staff Administrative staff
Intended learning outcome	
• Enhanced skills and experience in solving real life issues with the use of a Design Thinking approach • Better ability to collaborate and function in teams • Enhanced skills in communication, decision making • Increased sense of personal and social responsibility and citizenship – local and global	
Description	

Design-thinking is essentially group work whereby the group first decides on the problem/product to be solved/designed. The group consists of all users involved and should be multidisciplinary.

Start with simple steps in which the most important elements are:

- Ensure an atmosphere with a lot of empathy (trying to walk in other people's shoes). It can be done in many ways – an experienced teaching staff member can facilitate a workshop or use tools like 'Personas'. A persona is usually understood to be a representation of the needs, thoughts and goals of the target user. Personas are designed to help you to empathize with individuals who might use whatever it is you are designing. The aim is to understand the users' emotions, needs, thoughts and motivations. With mindfulness and experience, anyone can become a master at empathising with people. If you use personas then you will need to prepare so-called 'persona' cards giving a short profile or biography of the personas you are using.
- As part of the process of empathising with the target users, students need to see their world, appreciate them as human beings, understand their feelings and to then communicate their understanding, Students need to observe users in their natural environment or engage with them in interviews.
- It is important to carry out a detailed research and analysis of the problem/issue and solutions applied so far
- Students should make a specific work plan defining ways of acting and deadlines for themselves.
- Students should then brainstorm to gather all possible ideas
- Students can start to build on the idea by drawing on a whiteboard/blackboard/flip chart (whatever is accessible)

You then need to create a prototype or set of prototypes of the different solutions possible.

- build/create/make a prototype of the solution/product/programme and immediately try out how it works. A prototype should be makeshift in nature, the less solid, the better, as it is meant not to be the final version. The end users are supposed to evaluate it many times.
- Re-iterating (repeating, making again, improving) the design process over and over until reaching a satisfactory conclusion.

Preparation	The teaching staff member may or may not provide topics and issues to be solved.
Required resources and equipment	Materials on applying a Design Thinking approach are widely available and can be useful. See the additional information section below for some useful links. Tools for writing and drawing should be made available, the work can also be done online using easy to access tools like Pinterest, Google+, Facebook…
Success factors	This approach requires a high level of engagement on the part of students as well as their willingness to solve a problem. It also requires a considerable level of passion and involvement on the part of the teaching staff member.
Advantages	In line with a "Learner centred education" mindset, Design thinking helps to bring focus back to the learning individual's

	needs. Applying Design Thinking methodology develops creative problem solving skills which are crucial in the contemporary job market.
Disadvantages	This approach may require too much input from teaching staff who have only a limited amount of time and resources
Additional information	Here are some examples of projects you could run using a Design Thinking approach: designing a new learning space, designing a cultural event , working on educational curriculum The idea of user experience UX design is well described here. This toolkit contains a Design Thinking process overview, methods and instructions that help you put Design Thinking into action, and the Designer's Workbook to support your design challenges. More information about personas is available here and you will find useful templates for creating personas here and here. examples Here you will find Design Thinking Crash Course, this course is also useful.