Author
Niedworok, Anja

The Impact of Design Thinking

We work with Design Thinking (DT) on students' personal development, their creative output and way of thinking. Besides the technical learning's of DT, a social environment is created in which trial-and-error learning is enhanced.

We work with Design Thinking (DT) on students' personal development, their creative output and way of thinking. A social environment is created in which mistakes are accepted. Our students consistently highlighted the atmosphere in class as one of the most decisive components that enabled them to generate out-of-the-box ideas. From a teacher-viewpoint, the development of this psychologically safe atmosphere is crucial, but very difficult to implement. While students were working through their ideation and prototyping cycles, we captured a variety of behavioral changes through observation. Design Thinking forces students to act on a problem very early in the process. We are all trained to solve problems in a structured manner and Design Thinking disrupts this routine. This approach might feel uncomfortable in the beginning, but is rewarded later on: we frequently observed how impressed students are after they completed crafting a seemingly hasty solution to a problem. They look at their output realizing that imperfection, "raw" results are nothing you have to be ashamed for, but provide deep insights to successfully continue with the refinement of your product or to even drop it and start from scratch. At the end, students reflected on their individual take-aways from the course. Students described these personal aha! moments that they experienced throughout the course, their personal growth and changes in thinking style which they want to preserve and transfer to other problem statements.

Success factors & innovative elements:
A) Impact assessment: by measuring the effect of the DT components with the help of interviews and observations, we aim to provide tangible results for behavioral changes over the course of 13 weeks.
B) Establishing transferability: we aim to identify the influence of different DT practices (i.e. human-centered approach, visualizing, combination of divergent and convergent approaches), thinking styles (i.e. critical and integrative thinking, reflective reframing and abductive reasoning) and mentality (i.e. tolerance for ambiguity, viewing constraints as opportunity or coping with (fast) failure). Instead of focusing on how to structure and cluster the problem, at the end students start right away with the first idea that came up. All of these elements can be applied in and complement other course settings (independent from our design thinking context and the number of students taught).
C) Inspiring the ETH community: we aim to show that this interactive and multidisciplinary course format triggers the development of creative minds and make these results accessible to the ETH community.