44th Session of the INSME*Academy*

Design Thinking applied to Education and Training

24th of January 2017

The designing culture, intended as a combination of **imagining**, **doing** - meaning with that experimentation - and **presenting ideas,** was at the core of the 44th session of the INSME*Academy* on **"Design Thinking applied to Education and Training"** held by Dr. Katja Tschimmel, Partner and Consultant at MINDSHAKE, Portugal.

Dr. Tschimmel opened the session by sharing a definition of Design Thinking (from now on DT) by Tim Brown, CEO at IDEO, who referred to this concept as "*the introduction of design methods and design culture into fields beyond traditional design, such as business innovation*".

Understanding how the concept evolved is fundamental to avoid misinterpretation about its definition. The first publications released in the 80s/90s dealt with Design Thinking as a mere description of the cognitive process of designers. These studies tried to analyze what designers have in common, identifying the following elements:

1- they analyze and understand problems of the artificial world (meaning with that what nature is not creating);
2- they find new perspectives for well-known realities;
3- they materialize these new perspectives to develop new symbolic meanings (by giving new sense to what has been created).

In 2010 DT conquered the business world, it started to be conceived as a **new mindset** that can be applied not only to the design field but to a wide range of sectors from education to business management. As a matter of fact, from 2010 onwards DT has been applied to semantic innovation, technological innovation, business innovation, service innovation etc. and started to be identified as a new approach combining **"the doing" and the culture**, leading to new realities and thus innovation.

Innovation practitioners often wonder if everybody can become a design thinker and Dr. Tschimmel provided useful guidance to act as such by putting the attention on the fact that creative professionals can also be design thinkers when they:

1- discover new opportunities;
2- think in multiple perspectives;
3- operate against well-known solutions, by experimentation;
4- think against stereotypes.

Furthermore any creative professional can be a design thinker when he/she applies and take the following principles into consideration:

- DT is a **human-centred approach** enabling clients and users to experience products and services. In this context developing empathy is of fundamental importance;

- **Collaboration** – DT is a collective and participatory process, that should include as much stakeholders from diverse disciplines as possible in the creative process;

- **Experimentation** – as stated by the Speaker "*if something is too easy is too obvious, thus can't be innovative and creative*" meaning that in the creative process it is crucial try as well as fail;

- **Divergent Thinking** – DT means to think in a variety of different directions as this is key to find future new possibilities;

- **Visualization** – images have the power to synthesize and clarify ideas. Visualizing the concepts make them clearer;

- **Prototyping** – early materialization is crucial to test solutions;

- **Holistic perspective** – each product and service belongs to a system of interactions and interconnections, that a design thinker needs to consider.

Diverse visual models have been developed to explain and contribute to visualizing the DT process. By analyzing all these diverse visual models, MINDSHAKE, ESADE and the D-Think Project (an Erasmus+ initiative) developed **the DT model Evolution 6².** By considering DT as an evolutionary process, this model is based on diverse phases defined as the 6 Es:

1. **Emergence**: where opportunities for innovation are identified;
2. **Empathy**: to explore the context in depth;
3. **Experimentation**: which is the idea generation phase through a process of failure and creation;
4. **Elaboration**: mainly the realization of the solutions that have been considered as the most suitable depending on the original intent;
5. **Exposition**: dealing with the communication of what was created to a target audience;
6. **Extension**: related to the implementation and improving phase.

The Evolution 6² model associates specific tools to each phase which are not to be considered as a universal recipe for DT as their application changes on a case by case study.

To present some of these tools, Dr. Tschimmel referred to her experiences with the Evolution 6² model. The first case study introduced was about training a team of the company Roche Portugal in Design Thinking.

During the **first phase** kicked off in 2014, MINDSHAKE organized a one-day workshop targeting project managers with the final aim of introducing them to the concept of Design Thinking and presenting the opportunities it could bring to their company and teams. The **second phase** involved collaborators at Roche Portugal for an innovation day featuring seven workshops to show them the most important tools of Design Thinking. During **the third phase**, MINDSHAKE provided an intensive one week training involving innovation agents, who were selected via interviews and have been recognized to have the potential and mindset to be facilitators inside the company. During this week, participants passed through the whole Evolution 6²process: a brainstorming on the opportunities for innovation was first carried out; participants then had the chance to observe people and space mainly through interviews during the empathy phase; they tried different tools during the experimentation phase; during the elaboration phase they prepared the visual business model

and in conclusion, participants communicated the new solution. The **fourth and last phase** of the training was dedicated to coaching and consulting services designed by MINDSHAKE to support participants.

Dr. Tschimmel then presented as a further case study, the D-Think project, a European Research Project which is an Erasmus+ initiative developed to overcome a pressing challenge: schools are struggling to face the increasingly complex world and continual social transformation. This requires a change in curricula as well as the development of new learning methods and Design Thinking perfectly fits this purpose. The goal of the project was to promote the use of Design Thinking by developing new education contents and tools and by changing the educators' mindset. During the first period, the project consortium produced research on new knowledge about Design Thinking as an innovative learning methodology. The project consortium also developed a mobile learning platform and a design thinking learning toolkit that will be tested in the upcoming pilot training sessions (which are supposed to start at the beginning of February).

Dr. Tschimmel concluded the session stating that DT educators can play a significant role in implementing DT processes inside SMEs. As a matter of fact, these processes can be applied to a wide variety of sectors and typologies of organizations. Despite this, one among the main challenges non-designers face when trained in DT is related to expressing themselves in a visual way. This is the reason why during training sessions, Dr. Tschimmel suggested to dedicate specific attention to train people in overcoming this barrier and the fear of drawing and prototyping. Working in a multidisciplinary way is an additional challenge non-designers often face. By closing the session Dr. Tschimmel suggested to always include a design thinker in a team as this might enhance the freedom of expression needed to innovate.