



## Workshop 22.11.2018 - Pedagogical Framework

**The eCraft2Learn pedagogical framework** is built on the ideas of inquiry-based and design thinking approaches, through which the learning process is constructed around hands-on projects that students develop. Students have the freedom to choose how to define the solution of the project they work with. Students develop their own ideas which may lead to diverse solutions. This approach expects to foster students who take thoughtful risks, engage in experiential learning, persist in problem-solving, embrace collaboration and work through a creative process.

**The cross-cutting idea of the eCraft2Learn pedagogical design is personalized learning**, a progressively student-driven model in which students are engaged in meaningful and authentic challenges to reach purposeful outcomes. Personalized learning offers different levels of freedom, depending on the student's prior knowledge and experience, and the task and goals of the curriculum.

Every student has an individual background of knowledge, experience and skills. Personalized learning aims to tailor teaching to individual needs, interests, and aptitude to ensure that every learner achieves and reaches the highest standards possible.

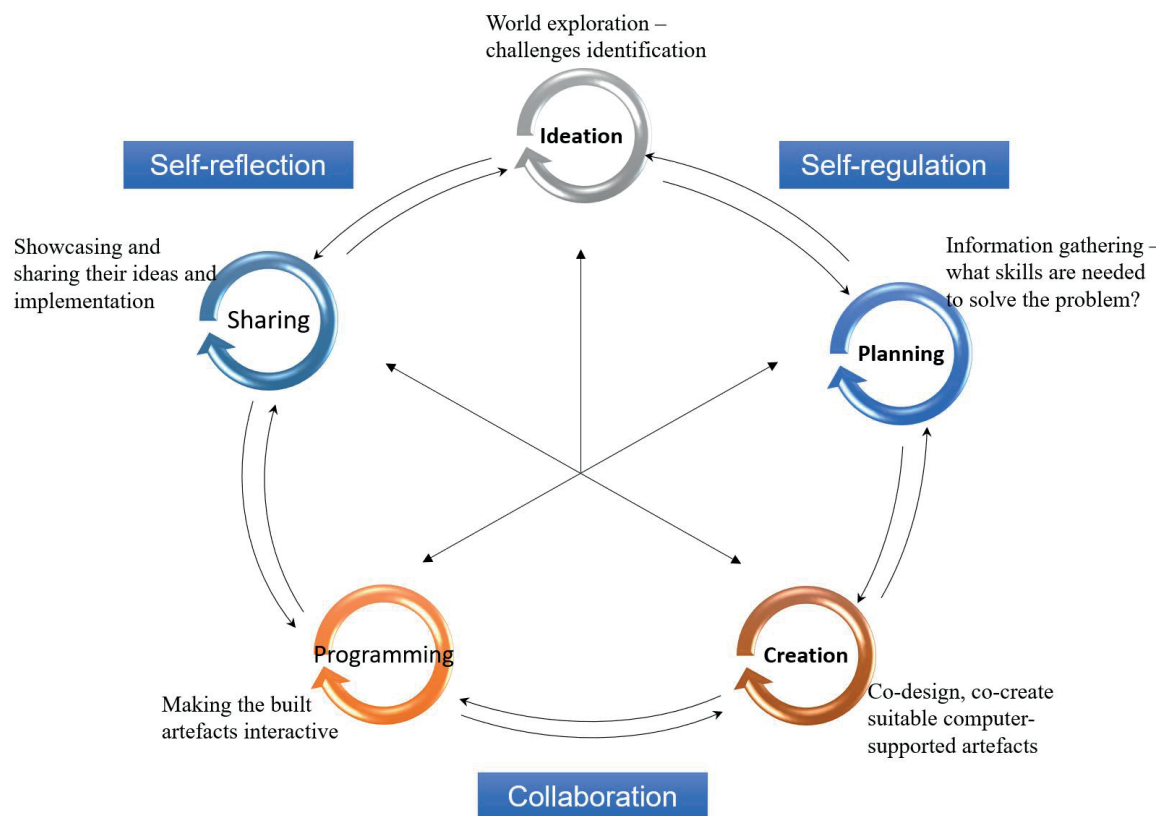
**We endeavor to connect the project to a realistic context: students' everyday life** – so that they can see the relevance of their work and the connection between school and the world. In informal settings (at after-school club), students explore the world to identify questions or puzzling situations, which might then turn out to be a problem for which they have to find a solution. In formal settings (at school), the project could be taken from your subject curriculum (e.g. photosynthesis, security, the new world discovery, etc.) or be an integration of several subject areas.

The students are active, taking responsibility for his or her own learning. This gives them

an opportunity to engage in an in-depth investigation of worthy topics. This approach gives the learners greater autonomy when constructing personally-meaningful artefacts, which are seen as the representations of their learning.

**Therefore, we need a system that can adapt the personal needs and interest of learners to provide both learning content and pedagogic environment/methods for the student. The eCraft2Learn-ecosystem will adapt to the need of the students and teachers.**

The eCraft2Learn pedagogical framework is developed within five stages: ideation, planning, creation, programming and sharing. The students' learning process is supported in every stage with peer collaboration, scaffolding from teachers and experts as coaches, as well as support from suitable technologies within the eCraft2Learn learning ecosystem.



**Students** are learning peers, each with their own set of strengths and weaknesses. They all are somewhere on the learning curve, and by helping each other and working together they progress often faster than when working alone. Students can take on roles, e.g. project manager, technology specialist, design partner, collaboration facilitator, etc.

The role of the teacher or 'coach' is to facilitate the learning experience and assist the learner to be on track when needed. The coach encourages students to explore information from different sources instead of giving complete answers. The coach also encourages peer learning and discussion.

The **eCraft2Learn digital platform** is designed to be easy to approach and use in a collaborative, open and playful environment, without any pre-judgement regarding the users skills. The platform works as a portal where different resources can be accessed, previous projects are documented, and there is opportunity to get online help from the expert community.

**Experts** can assume different work roles to support the learner through challenges encountered during the project in online or face-2-face situations. The expert's role thereby varies during the five steps of eCraft2Learn's project-based learning.

## Pedagogical design questions

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1. What are the interests of the students?
2. What knowledge students and teachers have for the project?
3. What are the learning goals?
4. How long is the project?
5. How the project is integrated
6. What are the technical requirements of the project?
7. Who can support teachers and students?
8. How can the learning goals be measured?