Edukata

The Innovative Learning Activity Design Toolkit

Future Classroom Lab

Edukata

DESIGNING FUTURE CLASSROOM LEARNING ACTIVITIES

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www.edukata.fi

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Acknowledgements

Edukata is based on a research-based design approach, developed by the Learning Environments research group in Media Lab Helsinki, in Aalto University, Finland, lead by professor Teemu Leinonen. The approach has been successfully used to design digital tools for learning and in Edukata is adapted for educators to design learning activities for their own educational context.

The design approach consists of four overlapping phases which repeat throughout the process: (1) Contextual Inquiry, (2) Participatory Design, (3) Product Development and (4) Prototype as Hypothesis. In Edukata, Design Studio corresponds to phases 1 and 3, Participatory Design to phase 2, and Composing Learning Activities to phase 4. You can an example process on page 14 and 15.

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We would warmly like to thank the teachers who tested an early version of Edukata during the Oulu Winter School in March, 2013.

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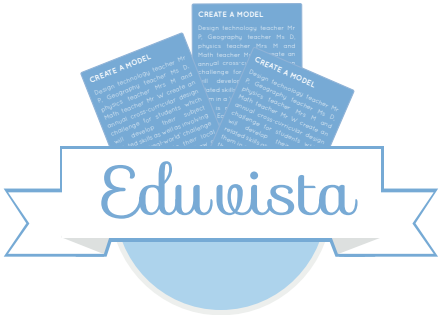
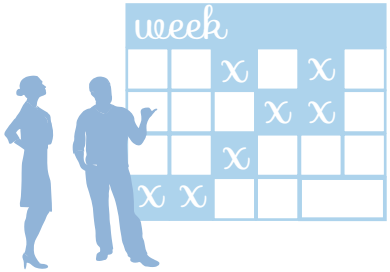


A process for creating innovative scenarios for future classroom practices.

A collection of digital tools that can support the design process.

A process for creating future classroom learning activities to implement the scenarios.



A course for the future classroom learning activities can be planned

The course can be taught at school.

Introducing Edukata

There is an abundance of inspiring scenarios about innovative schools and groundbreaking educational practices. However, practices that work well for one school do not necessarily yield the same positive impact in another. Unique organizational school structures, varying experience of educators and students represent different sets of complex challenges. Often, this complexity is not reflected in the scenarios, making the active implementation of change is difficult to introduce and sustain.

Edukata is a collaborative design process for educators to fill the gap between visionary scenarios and classroom practice. The Edukata design process is a source of inspiration for educators to strengthen their abilities and confidence as designers of future classroom learning activities and to expand and improve educational design skills.

Edukata starts with the selection of an inspiring scenario and guides educators to create future classroom learning activities that reflect the key aspects of the scenario, the personal interests and needs of students, and the classroom context. These learning activities will address design challenges and will build on design opportunities as well as supporting resources that educators identify during the Edukata design process. The learning activities will be documented as subject non-specific modules that any educator could perform.

The Edukata process is based on an empirically tested design methodology. During the years 2011-2013, learning activities designed with the Edukata process were piloted in over 17 European countries and in over 2000 classrooms. These activities were found to positively impact teaching, learning and attainment and to foster 21st century skills.

Edukata is a starting point. It provides a glimpse at, not a blueprint of the successful design of quality learning activities. It requires commitment, experience and stepping beyond your comfort zone. We recommend to facilitate the Edukata design process repeatedly to receive in depth understanding of the process. The resource corner includes useful tools and online resources to support the Edukata design process. You may also seek professional training and certification from the Future Classroom at the European Schoolnet.

TERMINOLOGY EXPLAINED

LEARNING ACTIVITIES

Detailed description of novel teaching and learning in classrooms.

EDUKATA DESIGN TEAMS

Small groups of educators coming together to create learning activities.

SCENARIOS

Inspirational stories of learning situations.

DESIGN CHALLENGES

Circumstances that prevent teachers from performing learning activities.

DESIGN OPPORTUNITIES

Existing practices or circumstances that support learning and that can address design challenges.

ACTIVITY RESOURCES

Tools, people and events that support teachers in performing learning activities.

EVERYTHING YOU NEED

DESIGN TEAM

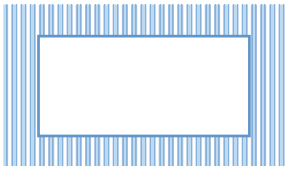
3-4 educators, including the facilitator

PARTICIPANTS

People who could benefit from your results

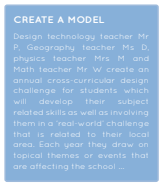
EDUKATA BOOK

The document you are reading



DESIGN STUDIO

A space for the Edukata design process to happen



SCENARIO

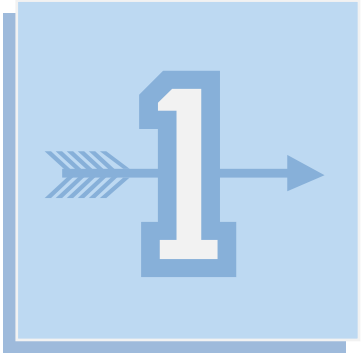
More than one scenario increases the time needed

STICKY NOTES

Four different colours

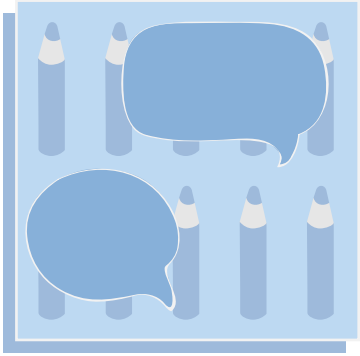
PENS / TAPE / CAMERA / MICROPHONE

Documentation tools for your sessions



GETTING STARTED

- Form a Design Team
- Select a Scenario
- Plan Your Design Process
- Set up a Design Studio



DESIGN STUDIO

- Meet at the Design Studio
- Start your Analysis
- Refine your Work

PARTICIPATORY DESIGN

- Prepare the Session
- Introduce Yourself
- Facilitate and Listen
- Closing and Follow Up

COMPOSING LEARNING ACTIVITIES

- Plan Learning Activities
- Write Learning Activities
- Try Learning Activities

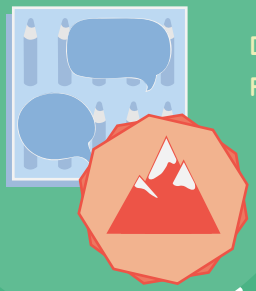
Edukata Sessions

The Edukata design process includes four type of sessions:

- GETTING STARTED
- DESIGN STUDIO
- PARTICIPATORY DESIGN
- COMPOSING LEARNING ACTIVITIES

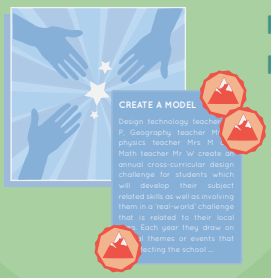
The Edukata process always starts with a getting started session and always closes with composing learning activities. Between the getting started and the composing learning activities sessions, design studio sessions and participatory design sessions are facilitated. Design studio sessions and participatory design sessions happen alternatively, and several iterations are recommended. You can choose how many iterations to include. Keep in mind, it is these sessions in which the core design work towards future classroom learning activities takes place.

Edukata Plan: *Example* Design Studio: *Example Space*

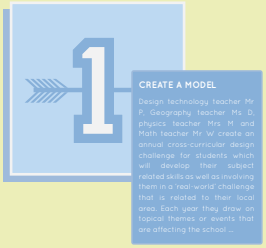


DESIGN STUDIO
Focus: Challenges

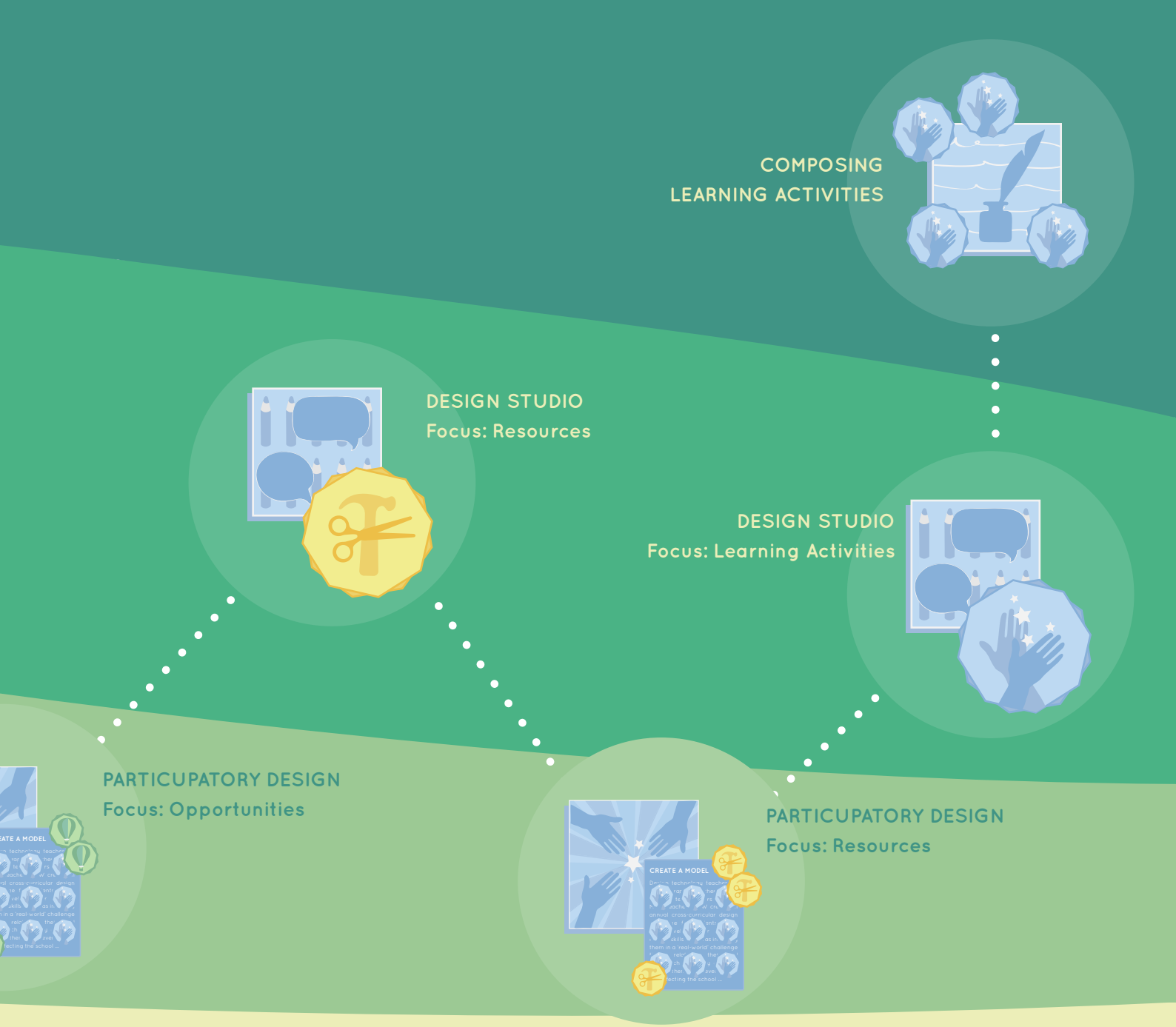
DESIGN STUDIO
Focus: Opportunities

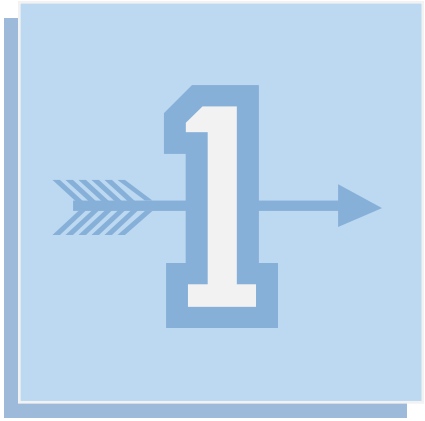


PARTICUPATORY DESIGN
Focus: Challenges



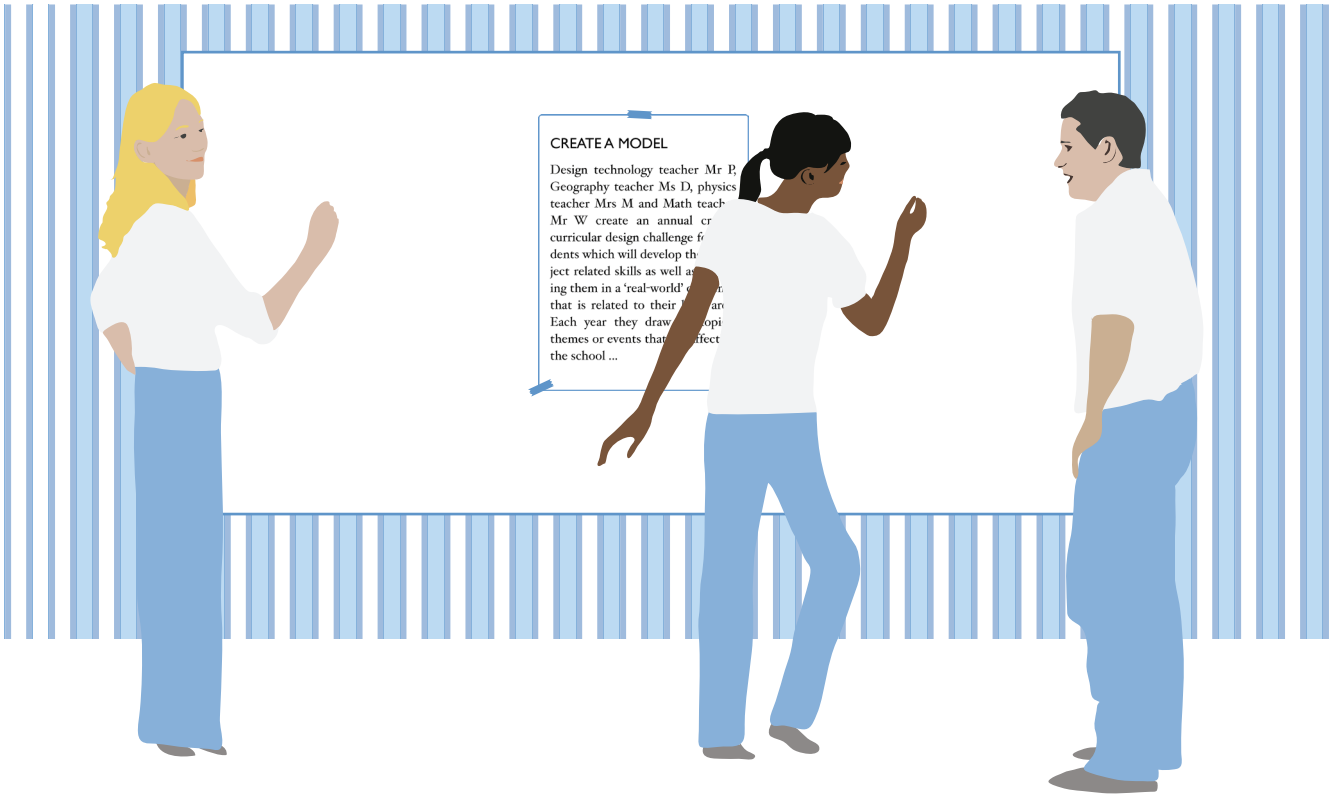
GETTING STARTED

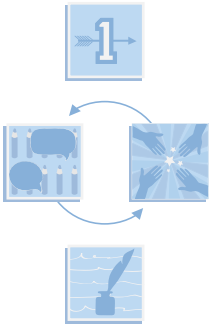

COMPOSING
LEARNING ACTIVITIES
DESIGN STUDIO
Focus: Resources
DESIGN STUDIO
Focus: Learning Activities
PARTICUPATORY DESIGN
Focus: Opportunities
PARTICUPATORY DESIGN
Focus: Resources
CREATE A MODEL



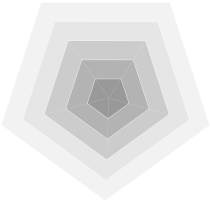
Getting Started

You form a design team of fellow educators and select an inspiring scenario as basis for your collaborative work. You plan your own Edukata design process and set up a design studio, a designated place for your design work.

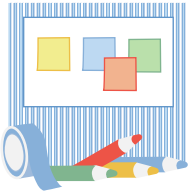




PREPARE – Form a design team of educators to work with throughout the Edukata process. We recommend to form a design team of 3-5 educators with diverse backgrounds. Perhaps ask an ICT experienced educator to join. Plan your design process using the Plan worksheet in the resource corner. Include several 45 minutes to 3 hour long sessions at least one per week. Short breaks between sessions allow you to reflect and to select the best ideas. As you go along, additional sessions might be necessary. Be open to change your process. For a meaningful progression, ask all team members to participate in all sessions.

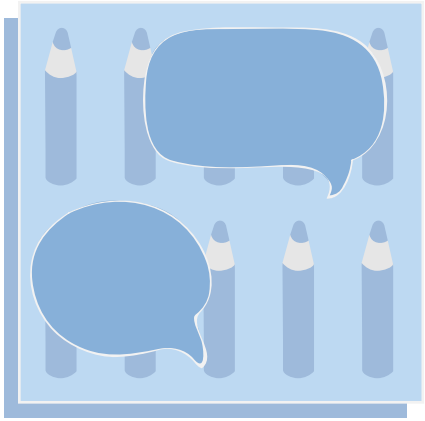


INSPIRE – Use the innovation maturity model in the resource corner to estimate the maturity of your school in relation to outcomes, processes and resources. Then select an inspiring scenario that is slightly higher in maturity and use it as starting point for your design work. The resource corner includes information on where to find existing inspiring scenarios and how to create your own. Ask your team to be familiar with the scenario before the first design studio session.



COACH – Set up a design studio with your team. Arrange a quiet room or corner of a room with a wall that you can paste paper to. Print and paste the scenario and your process plan to the wall. Collect the rest of your design equipment, including sticky notes in four colours. We recommend using four colors to represent four aspects: design challenges, design opportunities, learning activities, and activity resources. Create a color code legend and paste it to your wall.

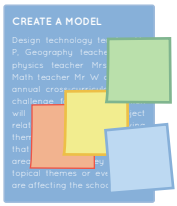
ASSESS – Ensure your space is reserved for the entire Edukata process, so you can leave work in progress where it is without worrying that someone removes it.



Design Studio

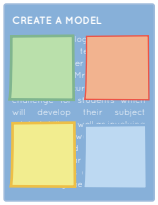
The design studio is where the team meets and works. Design studio sessions further the design, moving from open ended discussions about a scenario to concrete and justifiable ideas for learning activities. Design studio sessions support the building of mutual understanding and the exchange of tips and ideas. To create quality learning activities through in-depth analysis, perform several design studio sessions. Combine them with participatory design sessions for even better results.

PREPARE – Summarize any previous sessions and generate a progress estimation and a focus for the session. Identifying design challenges, recognizing opportunities and unearthing activity resources are important steps in designing learning activities. Make sure the team records all mentioned ideas using the four differently colored sticky notes. All aspects will be produced in any one design studio session. Focus on one aspect per session.



INSPIRE – Meet your design team at the design studio and give a quick progress overview, including the focus and goal of the session.

COACH – Initiate a discussion about your overall goal to create learning activities that enable the performance of the gist of your scenario. During each design sessions, use a document as a starting point for your work: in the beginning an inspiring scenario and later generated design challenges, opportunities, activity resources and learning activities. Play with your topic or theme and explore other subject areas, also those outside of the team's area of expertise.

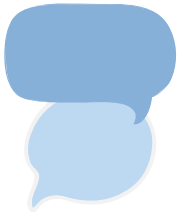


ASSESS – Remove any duplicate notes, rewrite any noted that are too brief or difficult to read, and rearrange them logically. Document your work by taking pictures. Schedule a participatory design session and invite participants before the next design studio session.

Participatory Design

Participatory design sessions provide you with new ideas and inspiration between Design Studio sessions, by discussing your work with people who may benefit from your design, such as fellow educators and students. You practice to discuss incomplete ideas and receive confirmation and constructive criticism on your ideas. You can organize as many participatory design sessions as you like, for example one with students, one with educators and/or one mixed sessions.

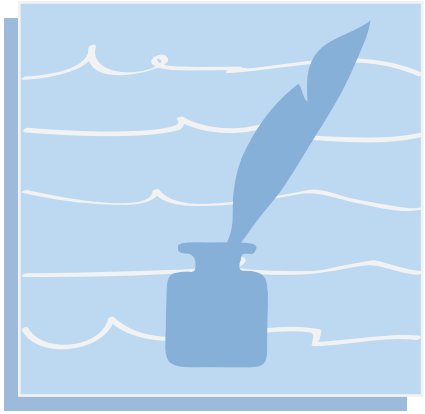
PREPARE – Recruit 2-3 educators and/or students who have not been involved in your Edukata process. If several design teams work on different scenarios in your school, design teams can meet each other. In case your team does not include an ICT experienced educator, ask one to join the session. The session is best organized at the design studio. Audio or video recording may help to analyse comments.



INSPIRE – Introduce yourself and your team and create a relaxed atmosphere. Explain that the session is a discussion about scenarios and work in progress with the aim to gather ideas for learning activities. Is the scenario realistic? How could it continue? Can you imagine yourself in the presented roles? What interesting learning activities can you spot? What work and what would not? How could would difficult aspects work? What tools and technologies could be used?

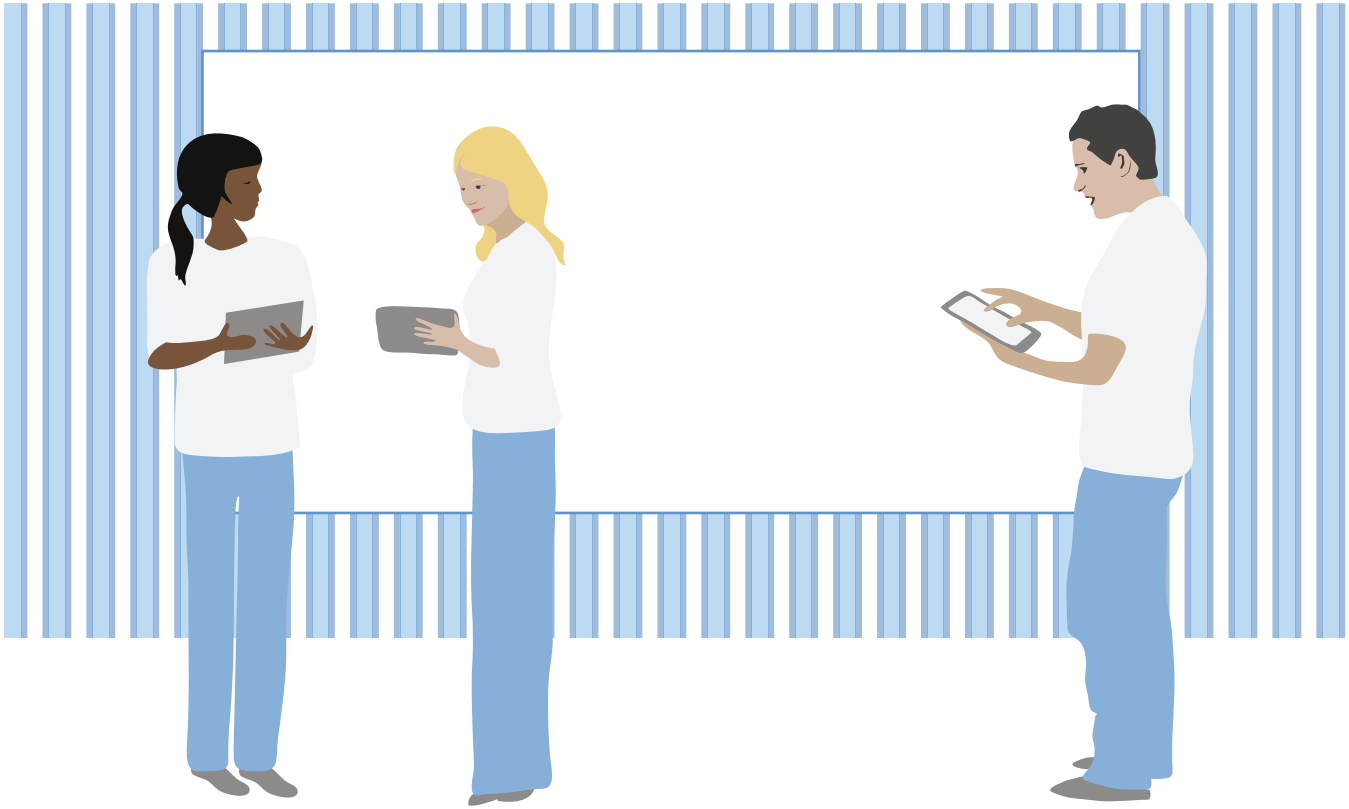
COACH – Ask the participants to look at the scenario or your work in progress. Initiate a discussion about the generated thoughts. Listen carefully. There are no right or wrong comments; invite everyone to speak freely. Sometimes the most interesting design ideas emerge from initially irrelevant seeming comments. Encourage quiet participants, and ensure no one dominates the discussion. Suggest to document and illustrate ideas. After the session, you might need to follow up with the participants. Ask for their contact information. Document your work.

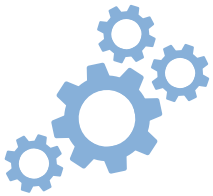
ASSESS – The received comments are valuable, but they may reflect individual preferences. Wishes might have been articultaed instead of needs. It requires practice and experience to get this small yet pivotal difference right, but it will help you to identify causes for particular comments and more useful learning activities. With your design team, listen to your audio recording and write a summary of the key points. Group the comments and note their frequency. Frequent comments about similar ideas might point to a design challenge to address. Find and document reasons for comments. Be open to change your work.



Composing Learning Activities

Composing learning activities closes the Edukata design process. Document your learning activities independent of a particular course and free of grade constraints so they can be applied to different courses and used by the educators of your team and others outside of your team.

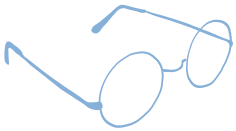




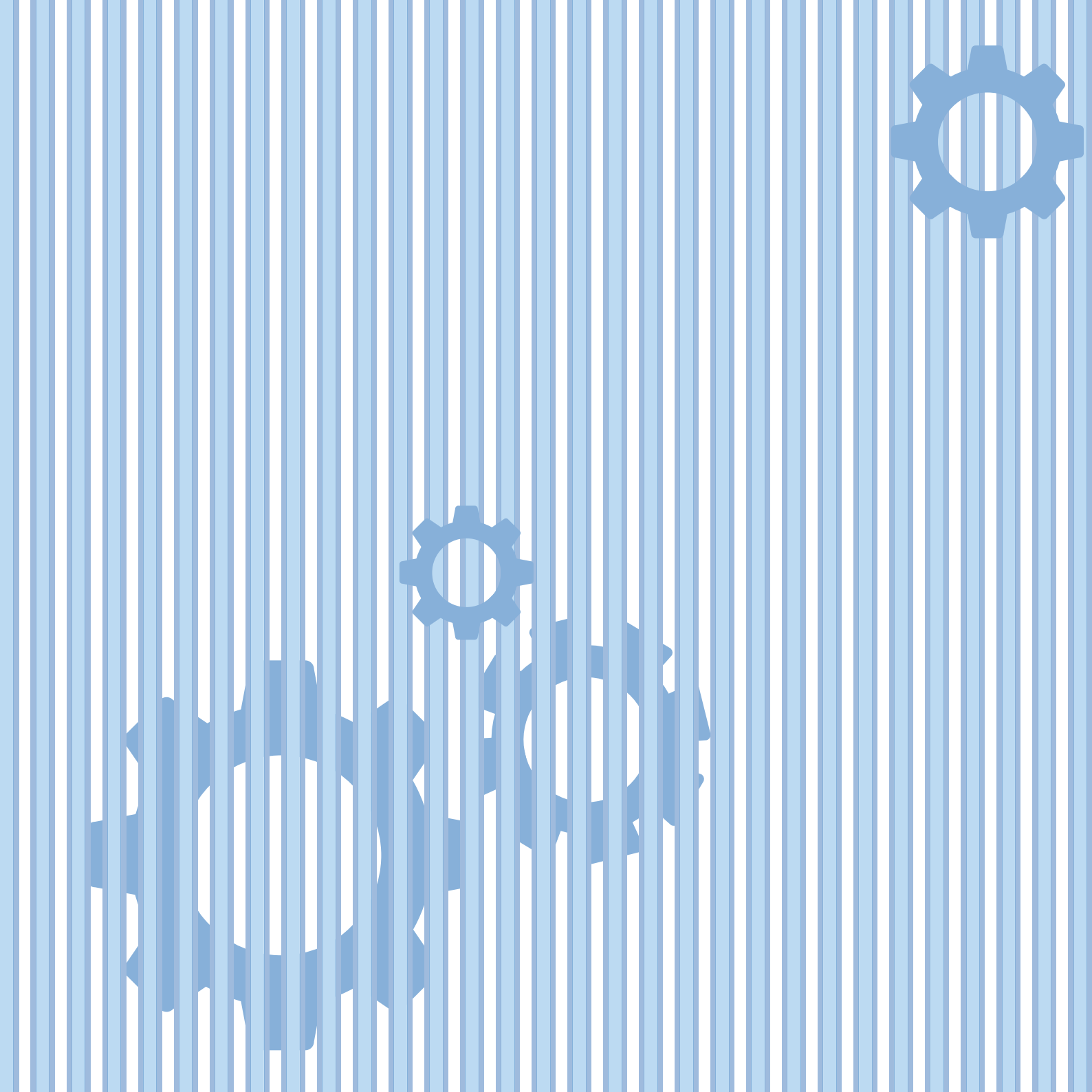
PREPARE – Familiarize yourself with the future classroom learning activity worksheet and the example learning activities in the resource corner. You might find an example learning activity similar to the ones you are planning.

INSPIRE – Distribute the future classroom learning activity worksheet and present example activities. Learning activities should focus on challenging and innovative practices that can be applied to a diverse range of educational situations. First, plan your learning activities: write sticky notes with titles of learning activities and arrange them logically. Identify what differentiates the activities. Merge activities if necessary. Add titles of design challenges, design opportunities and activity resources to the corresponding learning activities. Did you address all design challenges and allocate all activity resources and design opportunities?

COACH – Distribute work appropriately. Provide an overview that points out the highlights of the activity. Make sure to mention what may motivate educators to perform the activity and what students may learn. When documenting preparatory steps think about how to present the activity in the classroom and how to inspire students to participate. Write how the activity would continue. What would the students do? How would you coach, question and support the students? Also consider assessment of learning achievements. The writing process might take more than one session. Sharing is easier if you use a digital collaborative writing tool. You can adopt it to suit your context and needs.



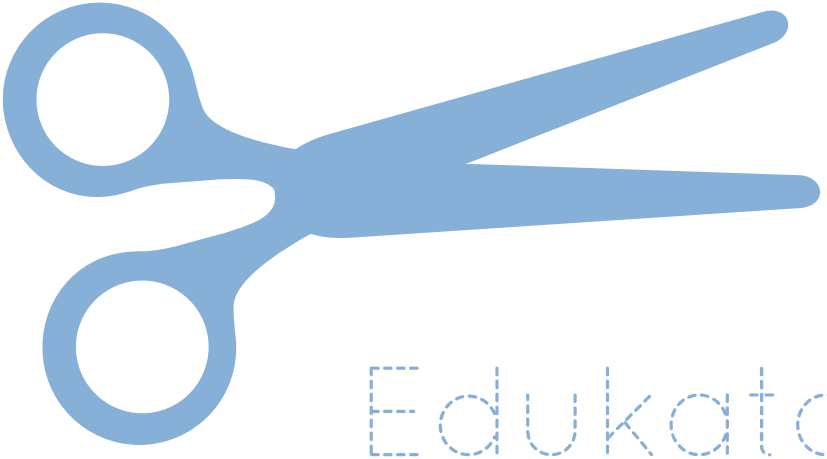
ASSESS – After a few days, return to the learning activities. Can they be improved? Plan an upcoming course based on the learning activities. Then try the activities with students. Afterwards, ask your team to write reflections in the form of short narratives: How were the learning activities used? What aspects were performed and which were not? What worked and what did not? What should be improved? Encourage the team to share activities and narratives online to inspire other educators.



Resource Corner

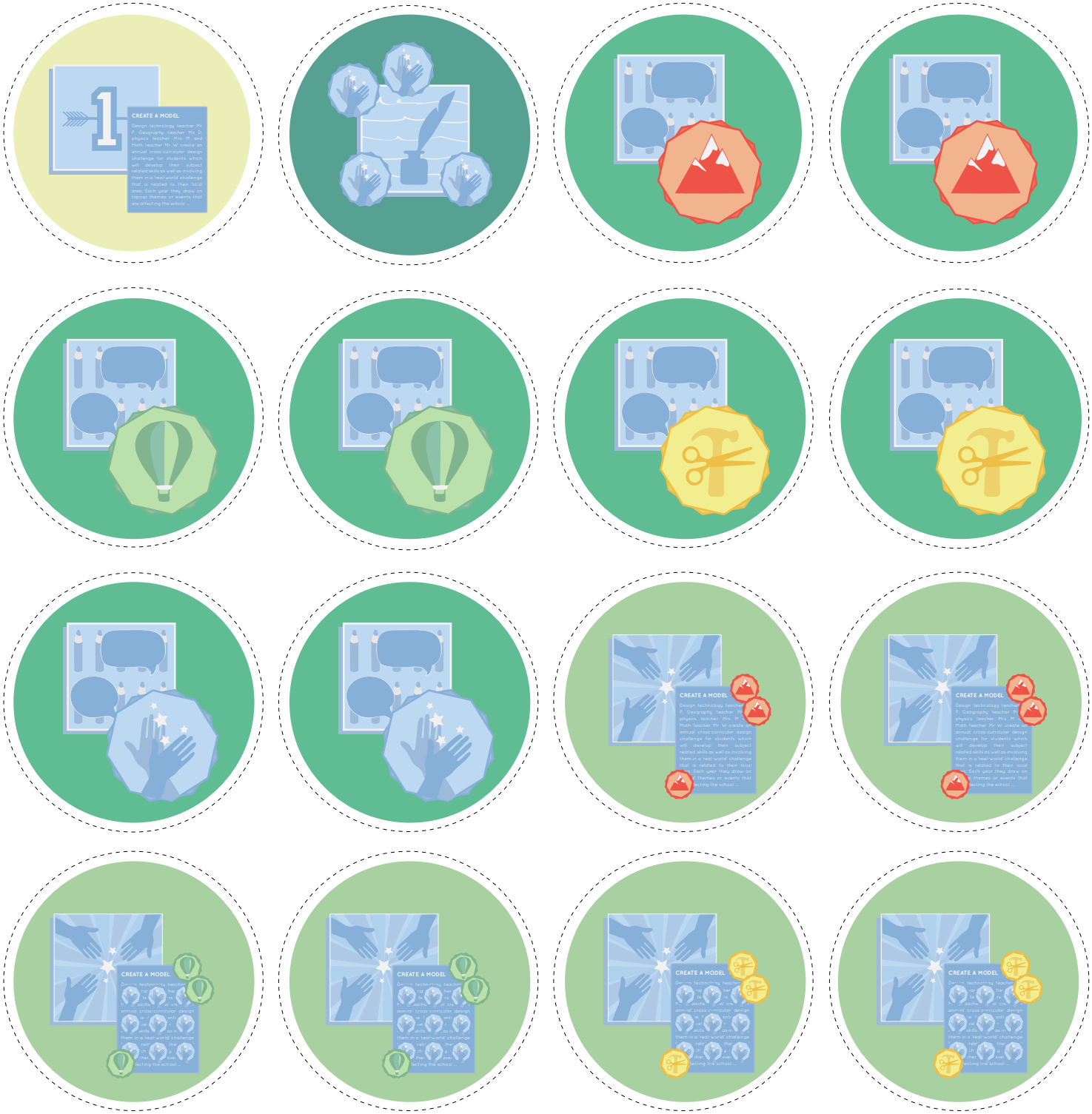
Throughout the Edukata design process we referred to the resource corner to find worksheets and further information on designing Future Classroom learning activities. The resource corner includes:

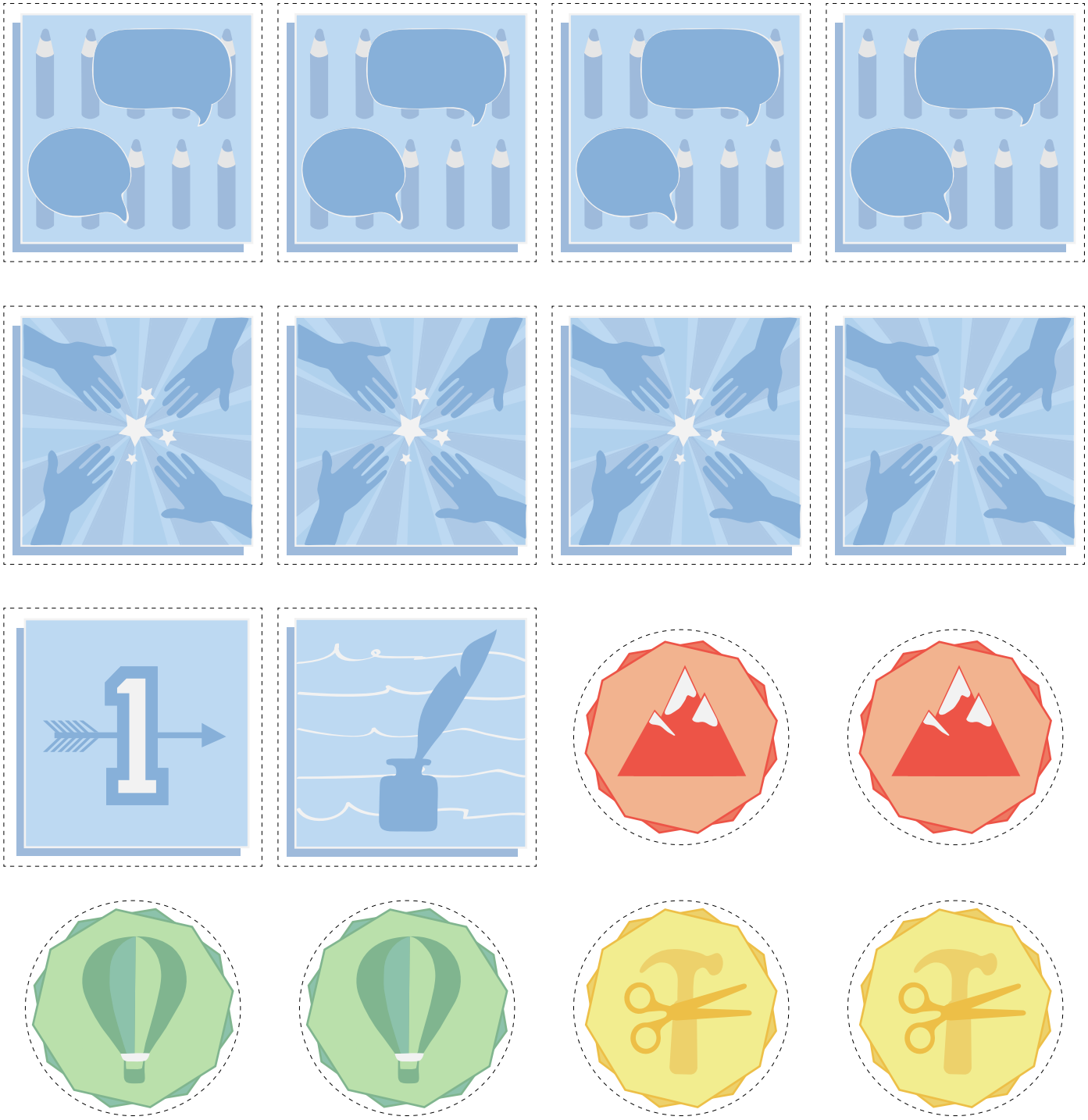
- **Edukata Plan Resources** for planning your Edukata design process.
- **Edukata Maturity Model** for identifying the maturity of your school and selecting appropriate scenarios.
- **Illustration of the Future Classroom Scenario Development toolkit** for creating scenarios.
- **Illustration of exmple learning activities** for inspiration.
- **Edukata Future Classroom Learning Activity worksheet** for writing learning activities.
- **Edukata Future Classroom Learning Activity worksheet** for writing learning activities.
- **Future Classroom learning activity "Reflect"** for seeing an example

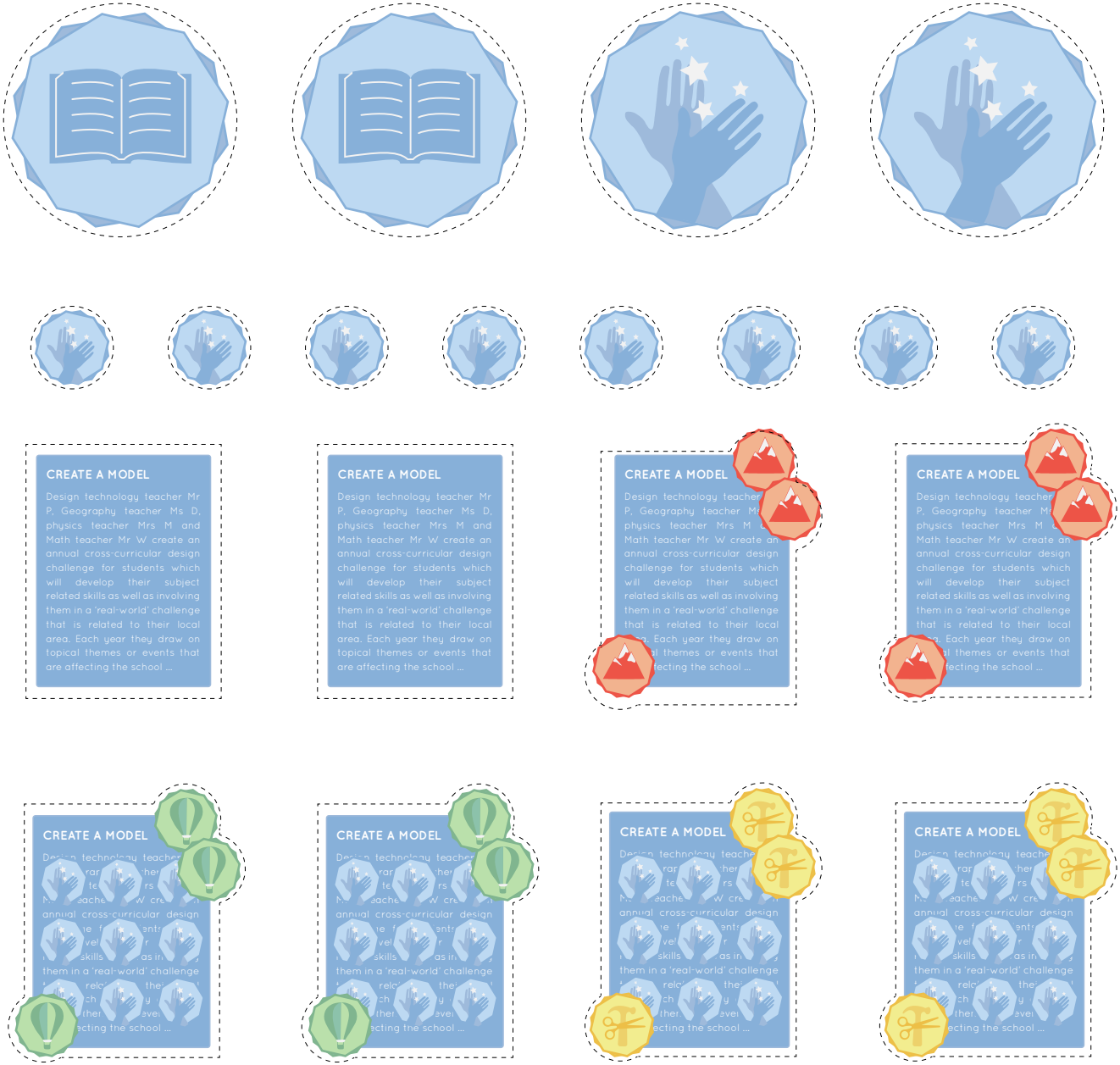


Edukata Plan

To plan your Edukata design process, decide on how many iterations you would like to perform and what the focus of the sessions should be. Then cut out the corresponding icons and paste them to the Edukata plan to document your process. The icon span over the next three pages, and the Edukata plan can be found thereafter.


1
CREATE A MODEL
Design technology teacher Mr P, Geography teacher Ms D, physics teacher Mrs M and Math teacher Mr W create an annual cross-curricular design challenge for students which will develop their subject related skills as well as involving them in a 'real-world' challenge that is related to their local area. Each year they draw on topical themes or events that are affecting the school ...

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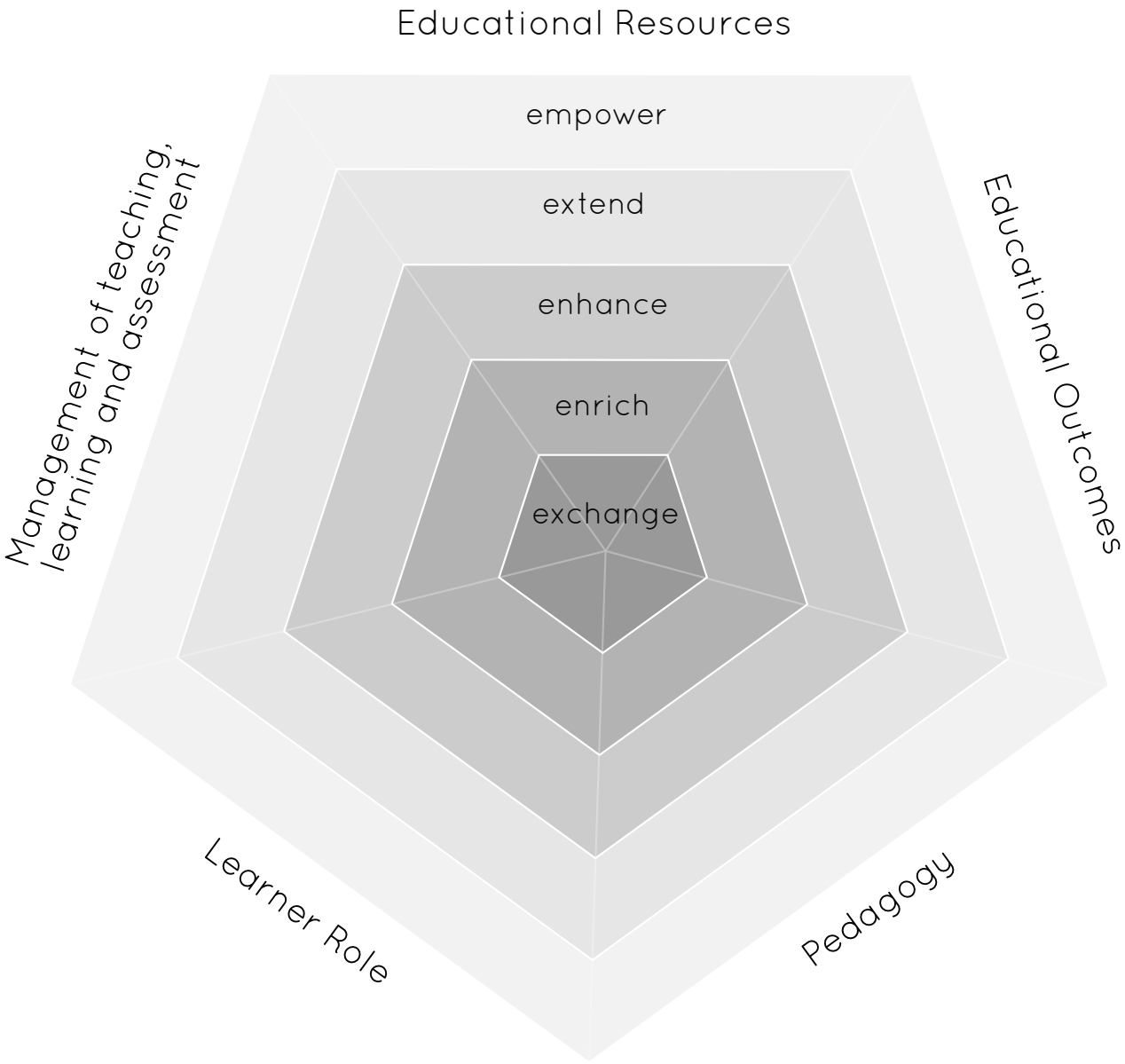
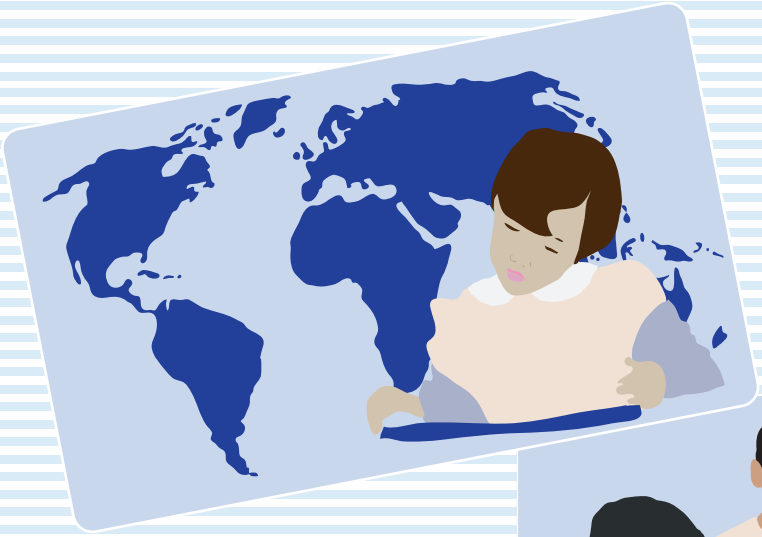
Innovation Maturity Model



For detailed explanation see Eduvista

Scenarios



Create scenarios with Eduvista

View example scenarios: http://itec.aalto.fi/scenarios/

Example Learning Activities: Design Learning

view activities: http://itec.aalto.fi/cycle-4

Learning Activities: Local Ground Geo Inquiry

view activities: http://itec.aalto.fi/pre-pilots/local-ground-geo-inquiry/
http://localground.org/

Future Classroom Learning Activity “ . . . . . ”

IDEAS FOR USING TECHNOLOGY

YOU MAY LOOK FORWARD TO ...

YOUR STUDENTS MAY LEARN ...

PREPARE / LISTEN

INSPIRE

COACH / QUESTION / SUPPORT

ASSESS

Future Classroom Learning Activity *"ENTER NAME"*

Illustrate your learning activity

Provide an overview of 2-3 sentences about your activity here. Mention the highlights of the activity.

IDEAS FOR USING TECHNOLOGY

List all digital tools that you find useful for this activity. You can also list tools that you are not planning on using, but know other teachers might like to try out.

YOU MAY LOOK FORWARD TO ...

... add the motivational aspects of the activitiy here. Why would teachers want to perform the activity?

YOUR STUDENTS MAY LEARN ...

... add the pedagogical aspects and student motivation of the activity here. Why would students want to perfom the activity?

PREPARE / LISTEN

Write the preparatory steps for the activity here. Consider the role of the teacher carefully. How could listening be a part of your activity?

INSPIRE

Write about the way in which you will present the activity in the classroom. How would you inspire your students to participate?

COACH / QUESTION / SUPPORT

Write how the activity would continue. What would the students do? How would you coach, question and support the students?

ASSESS

Present based on what you would assess the students learning achivments. What do you think would be a good way of understanding the students' growth? Think away from measurement criteria that are one size fits all. Include your ideas for capturing students honest development processes.

Future Classroom Learning Activity “Reflect”

Students and the teacher record, post and share audio-visual reflections and feedback of project progress, challenges and future steps. The students slowly build a shared collection of ways to tackle challenges, which can be used after the project ended. Classroom time: Approximately 10 minutes

IDEAS FOR USING TECHNOLOGY

Audiovisual reflection tools: TeamUp, ReFlex

YOU MAY LOOK FORWARD TO ...

... reviewing team progress quickly and comfortably
... providing personal feedback to teams
... a more fair distribution of support beyond the classroom
... spending less time recording feedback for students
... providing students with personal feedback through tone of voice and gestures
... using the recordings to better communicate with parents about school activities
... developing a collection of comments to your students
... building a resource of reflections made by students
... using novel tools
... develop technical, organizational and pedagogical competences
... acquire a repertoire of using reflection for multiple purposes

YOUR STUDENTS MAY LEARN ...

... to summarize, communicate, present and plan their work in progress
... to reflect on their work
... to provide and receive criticism

PREPARE / LISTEN

Develop your competence and expertise, by exploring how often and by whom reflection and feedback could be used in the learning story and by decide on the reflection tool that you would like to set up and use. Before recording another feedback or reflection listen to the previous one.

INSPIRE

Motivate the students to reflect on their work by expressing the benefits and reasons for reflection, for example easier review of the last steps, catching up after an absence, receiving direct feedback from the teacher.
Tell your students that in design related learning projects, regular reflection can support letting go of initial, not very good, ideas and to develop the feeling of ownership.

COACH / QUESTION / SUPPORT

Teams reflect on what they did, what they plan to do and the challenges they encountered or foresee. The first reflections may not be a smooth recording. Coach students to overcome initial feelings of frustration or inconvenience. Be assured, after recording a few reflections, you will start to recognize the value of your investment. Teams listen to the recordings by others and record questions and tips for them. Coach and support them in doing so. Listen to the recordings and adopt your teaching to the needs of the students. Record audio-visual feedback for the teams, including questions and suggestions that may inspire the teams to think further, based on the student reflections. Experts may be invited to record feedback to the student teams. Their feedback is may become ubiquitous, and a source of inspiration for the students in the years to come.

ASSESS

You may assess based on the student's ability to listen and react to your constructive comments, or based on the depth or relevance of their reflections. Additional ideas for assessing partially completed projects: Review all work. Compare everyone's progress updates with their presentations to see if all important steps are included in the presentation. Review all reflection recordings and discuss the process with the students. What was their experience like? What have they learned? What would they like to explore further? Student work can be used for open feedback and reflection. You could assess documentations as resources for exam preparation.

Notes

Notes

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