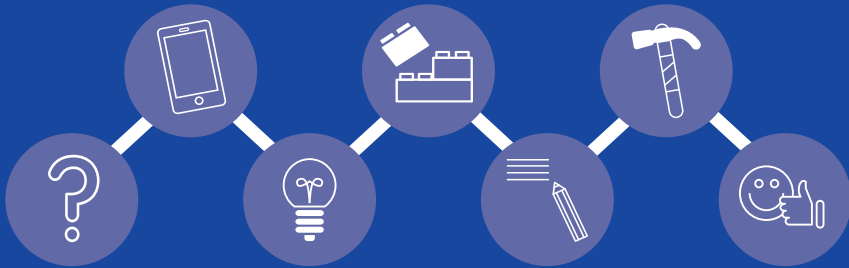


HELSINKI DESIGN PATH FOR SCHOOLS



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The new national curriculum adopted at Finnish comprehensive schools in the autumn of 2016 emphasizes collaborative development of education in ways that students, parents and guardians and the entire school network joins teachers in the planning and execution of learning. The methods and processes of design provide a productive foundation for collaborative development of learning. Design is not only design of objects, but the design process can also be used to develop instruction, the learning environment in school and the operating culture.

This design path material is intended as a new type of tool for solving everyday problems and challenges in school on a collaborative basis. The design path comprises the definition of a challenge, observation, ideation, small and agile experiments, a plan, execution and, finally, an evaluation of the whole process. This material describes all stages of the design path and includes a great deal of practical methodological suggestions. The design path can also be used in different subject studies and as a tool in the planning of phenomenon-based learning.

PARTICIPATE, SHARE AND DUPLICATE!

A design process always looks a lot like its makers. Schools can implement either small or larger, quick or term-long design processes of their own. The design path can be used with groups of different ages and different sizes. The strength of the design path is that it can be used to combine contents from different subject studies and to engage everybody in the planning. Ideas can originate from individuals and small everyday observations.

This publication presents briefly the main aspects of the design path. The appendix contains a directory of design education experts in Finland.

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City of Helsinki
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United Nations
Educational, Scientific and
Cultural Organization



HELSINKI
CITY OF DESIGN

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CHALLENGE



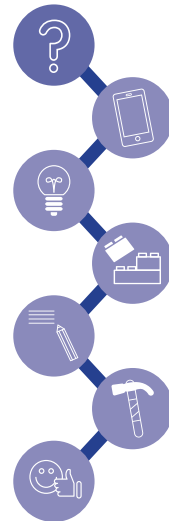
1. CHALLENGE

How can things be changed through collaboration? By forming ideas, by making a plan, by experimenting and by effecting change. The best way to begin a design process is to recognize some circumstance or phenomenon to improve. The focus may also be on a whole new circumstance – an innovation – to develop.

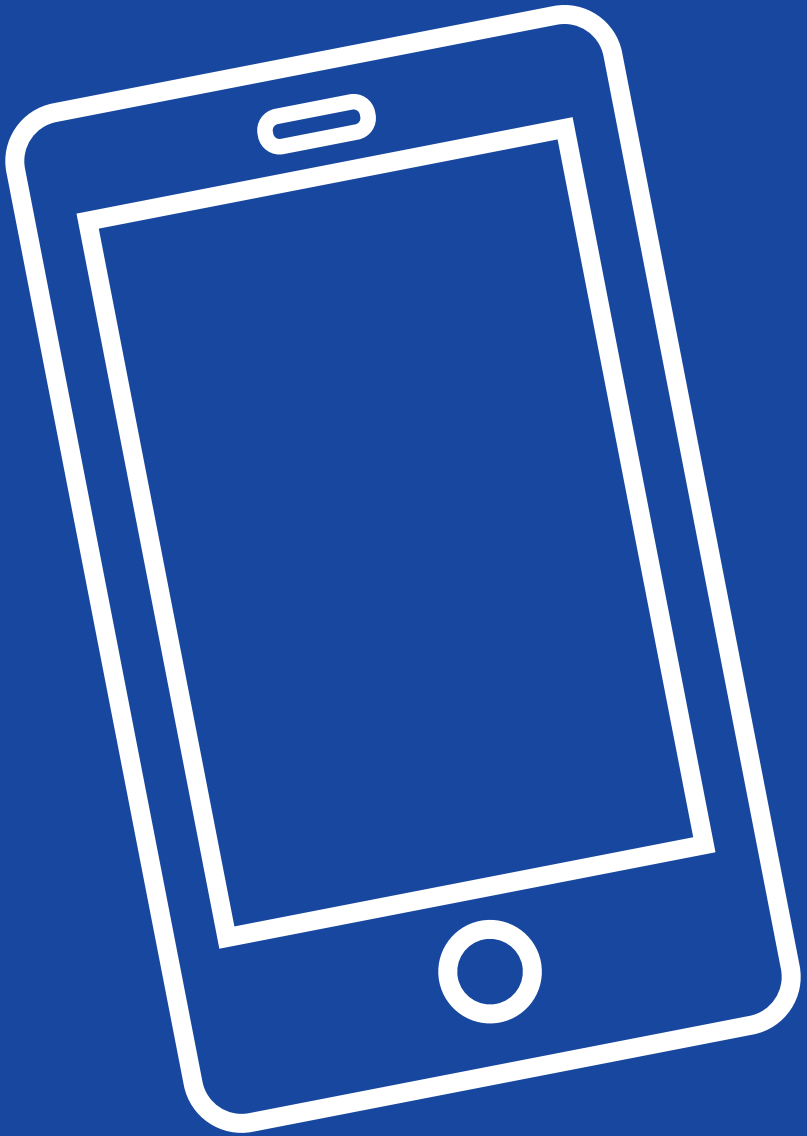
Design is not only design of objects, but it can be used to impact social challenges, the development of services and improvements in our shared environment. By evaluating together your environment, the conduct of the community and various spaces, you can identify circumstances to improve. The recognition of a problem leads to the goals of the design work.

It is important to be open to new ideas and ways to act. It is advisable to illustrate the goals with drawings, comics-like strips of images and photographs. It is also advisable to write down observations on aspects that should be affected with the help of design. It is recommended to define the challenge through teamwork and to hear perspectives brought up by various users.

The goals could be visualized with a “challenge map”, in which the problem is illustrated from many different perspectives. The map could be compiled on a bulletin board with pictures, comments and ideas. The map can be complemented throughout the planning stage and kept on display for everybody to see. At the same time, it is good to assess the timetable and resources available for the design work.



- Illustrate or make a video of the problem.
- List shortages.
- Define the expertise needed.
- Reflect: Who is affected by the problem?
- How did the problem arise?
- Define the main users. Who are the targets of the design work?
- Define: Is this a large or small challenge? A short or lengthy project?



OBSERVATION



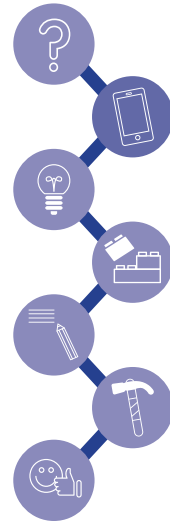
2. OBSERVATION

After a design challenge has been recognized, it is advisable to examine what attempts have been made earlier to solve the challenge. In addition to your own observations, it is useful to interview other users and to observe their ways to use the product, space or service in question.

For example, if the challenge is school lunches, we can focus on many different phenomena that affect the lunch experience. What is the sound environment of the cafeteria like? Is the space quiet or noisy? How could queuing in the cafeteria be sped up and recycling be improved? Acoustics can be improved with furniture and material choices. A definition of the rules and illustrated messages can impact behaviour in the cafeteria.

Observation helps us to comprehend the challenges of the current situation and to come up with ideas for improvement – or for whole new types of ways to operate.

Various methods of documentation, for example, photography, sequences of images (like comic strips), sound recording and note taking play key roles in observation. It is also useful to study and to seek ideas from similar challenges and their solutions. Conducted as teamwork, the charting of the challenge provides a comprehensive idea of how things work. This helps to recognize aspects related to the challenge and related opportunities in more detail. Observation often produces ideas for improving some circumstance – so draw them up and collect them immediately!



- Photograph and make a video.
- Interview users and experts.
- Monitor how a service or space is used.
- Look for more information on the Internet, do background research and review solutions produced elsewhere.
- Put yourself in the place of the user and experience the problem firsthand.
- Follow and “shadow” users.
- Compile the information, so it can be viewed by everybody.



IDEOINTI



3. IDEATION

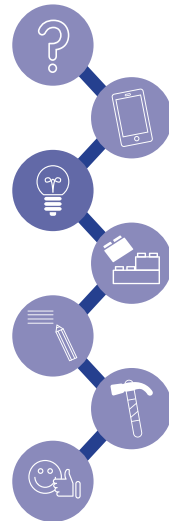
The stage of ideation - brainstorming ideas - is an enjoyable and inspiring work phase in which individuals and teams can shine. Put together a brainstorming workshop in which ideas are produced fast by drawing and writing. Put all ideas on display, for example, on an ideas wall. The evaluation and combination of ideas is best done together.

One idea can lead to a second idea and even to a third one. In order that ideas can be combined and developed, the ideation process must be open. Listen to everybody and encourage them to form ideas! Ideation can be focused on selected themes, and ideas can be worked on in small teams.

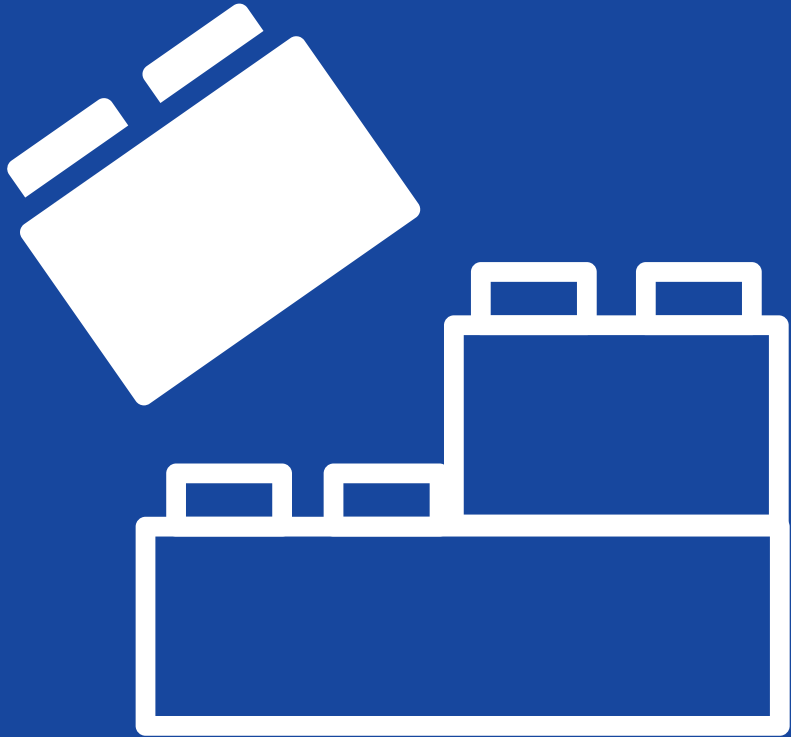
After spontaneous ideation, it is useful to review and to evaluate the new ideas together. The definition of ideas and a discussion on them is an important work phase, as its purpose is to decide how to promote the ideas.

Ideas can also be presented by role-playing around a theme. Ideas for a service can be drawn into a customer path - by illustrating the aspects and encounters that make up the service. The purpose of a customer path is to visualize stage by stage from the customer point of view how some entity or item is understood and used.

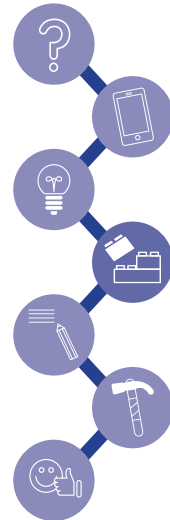
When evaluating ideas, it is advisable to consider their potential for realization, their novelty and their ability to solve the problems defined at the challenge definition stage.



- Draw, duplicate and share ideas.
- Illustrate the service stage by stage with a comic strip.
- Look for images on the theme - how have others solved the problem?
- Colours, materials, sounds - how do the ideas appeal to the senses?
- Vote on the ideas; ask for feedback from outsiders.
- Dissect the problem to analyze it, solve one matter at a time in teams.
- Prioritize and categorize ideas.



EXPERIMENTATION



4. EXPERIMENTATION

It is always good to test ideas. Experimentation allows ideas to be refined. It is useful to ask for feedback from users at the experimentation stage – how do they see the new idea?

The realization and acceptance of an idea should be explored by experimentation. How easily can a suggested solution be understood? How much would it cost to realize a new idea, and how could it best be done?

We can often see by testing different ideas why some good idea would not work in practice – and at the same time we can come up with other solutions that could be better implemented. The goal of experimentation is to choose the most workable ones among many ideas and to prepare a plan for implementation.

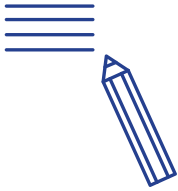
If possible, an idea should be turned into a prototype. This is a working model of an idea produced on a 1:1 scale. If the idea is for an operation and a collaborative action, it can be simulated by role-playing and by testing new operating models. This could be done with an illustrated customer path – what to do at each stage and in what order?

The test use could be recorded on a video in which the users are interviewed. It would be useful simultaneously to write down and to draw up proposals for further development of the idea. People's emotional reactions to new solutions should also be observed in the test situation.

- **Collect experiences.** How would the idea work?
- **Produce a visual representation of the idea and collect feedback.**
- **Ask for critique on the idea and improve it accordingly.**
- **Produce a prototype – test it in a real environment.**
- **Search the Internet for similar ideas.**
- **Use modelling and 3D printing.**
- **Crystallize how the idea would improve the current situation.**
- **Communicate, market and sell the best ideas!**



PLAN



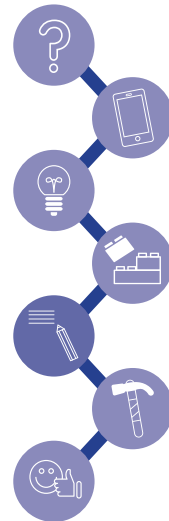
5. PLAN

The plan is a guideline for the realization of ideas. How do a new service and shared rules change behaviour? How are they understood and shared? The realization of ideas requires planning.

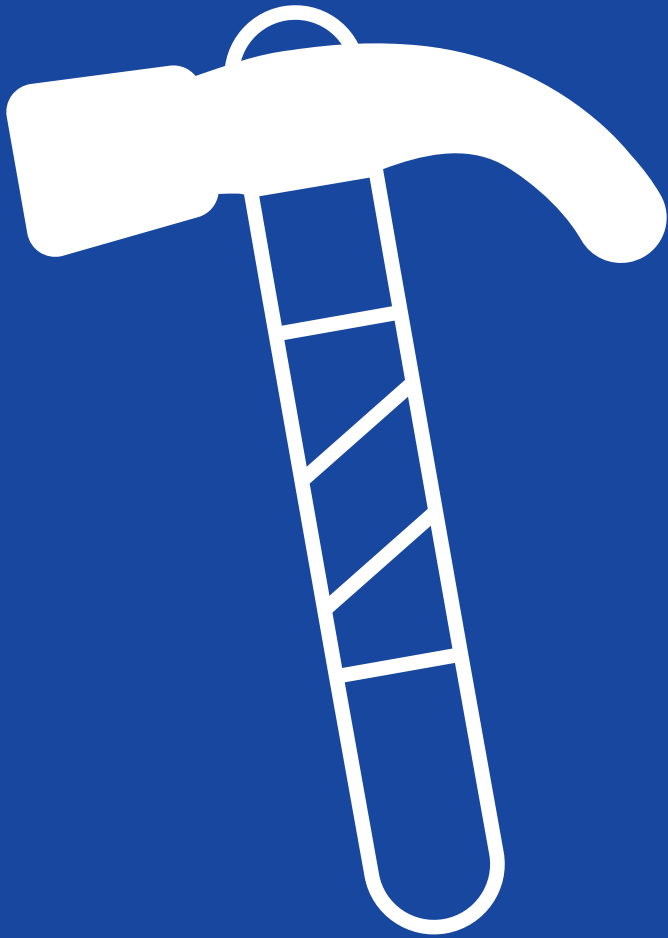
A designer or an architect defines changes with drawings and by modelling. Scale models and visual representations can help us to see how a plan could be implemented. Service design is used to impact behaviour and shared rules. Thus a plan can consist of an illustrated operating model and instructions for action in different situations.

Sometimes the implementation of a plan requires experts from many fields, and the plan should be produced as teamwork. In a school community, ideation can bring together parents and guardians, students and the personnel to consider a collaborative plan. In service design, it may be advisable to illustrate the rules, which calls for graphic design expertise. Various experts can also be invited to participate in the process. Good examples help everybody to visualize the type of solutions that are sought with the plan.

It is useful to define at the planning stage how ambitious and how large the proposed design path will be. The project could be a rapid and inspiring experiment or an extensive undertaking requiring commitment from several experts and extending over an entire school term. Service design can often have a quick impact, without a need to make changes to spaces or to redesign objects. It is then important to provide information and to illustrate the new operating model – and to practice it together.



- Define how the idea should be implemented.
- Model, define sizes and prepare drawings.
- Define materials, structures, colours.
- Define the scale, the whole entity, operating models and rules.
- Inform everybody about the plan, illustrate the customer path.
- Estimate the cost of implementation.



IMPLEMENTATION



6. IMPLEMENTATION

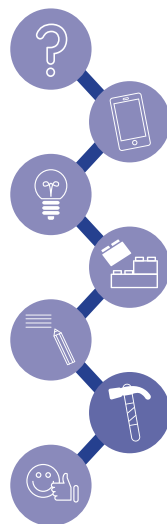
Plans can be implemented promptly. Some new manner of acting and doing things can be decided together. Shared rules can be produced as a result of service design without notable changes to physical spaces or objects. It may be enough to make improvements to a visual image and communication and to make them more comprehensible.

Schools can make their own rules. Changes to spaces and objects, however, can take time and require partners.

It is important at the implementation stage, too, to pay attention to feedback and, as necessary, to update the plan. It is also good to divide the workload, and the timetables and costs of all stages should be known.

A good plan helps us to monitor the realization of ideas. A plan promotes the realization of an idea when everybody understands the nature of the transformation being implemented. People are more assured of new ideas if the ideas have been tested and feedback on them has been collected.

Good solutions and ideas should be shared – in this way the transformation becomes faster and visible. As implementation is completed, users should be informed about the adoption of new operating methods and solutions – and people should be encouraged to try out new things.



- Should we do something by ourselves, or with someone else, and how should the plan be implemented?
- Find a producer, sponsor or partner.
- Monitor the quality of implementation at its various stages.
- Produce timetables and determine the cost of implementation.
- Train people to understand the results of the transformation.
- Successful management of transformation is part of the design process.



EVALUATION



7. EVALUATION

Plans can always be improved. Once a project has been completed, the success of it should be evaluated with all project participants. Did you reach the goals set for the project at the challenge definition stage? Did you create new and better solutions? How have the new ideas been adopted?

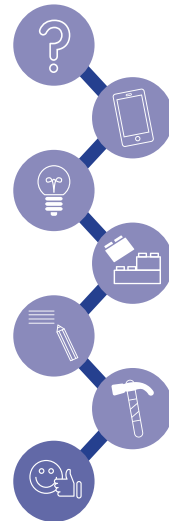
The new design solutions should also be evaluated on a long term. How will the solutions withstand wear and seasons? Can the solutions be duplicated and implemented elsewhere?

Profile and interview users. Write down and illustrate the benefits achieved in the project. Reflect together how the collaboration in the design process succeeded and how the planning process could be developed.

Was the project successful? It is useful to analyze a possible failure and to discuss how to improve collaboration in the future.

One important goal of a design process is to learn – to improve in the recognition of challenges and in problem solving. This is why critique is valuable: in order that the problems identified can be taken into consideration in the next process.

The results could be compiled into an exhibition or a presentation in which the participants of the design process can talk about the project. Presentation skills, as well as an ability to share and to talk about ideas and results, is part of a designer's work.



- Compare the situation at the beginning of the project with the results.
- How did the collaboration go? Discuss!
- Gather and keep the materials you created, and document!
- Measure the accomplishments.
- Organize an exhibition and collect feedback in conjunction.
- Publish your accomplishments and the results of the design work as a print or Web publication.
- Produce a Youtube video.



DIRECTORY

CONCEPTS USED IN DESIGN PATH:

Service design is an established term widely used in the field of design. It refers to design activity in a community affecting action and behaviour. In this publication service design refers to the design of shared behavioural models, rules and action.

Customer path is a concept that is used to analyze larger service concepts - to dissect them for analysis. The parts of one customer path - school lunches - could be queuing in the school cafeteria, the selection and distribution of foods, consuming the meal, the return of dishes and related items, and recycling.

DESIGN PATH

The text and other content of Design Path were produced by the City of Helsinki Education Department and Executive Office, the Finnish Association of Designers Ornamo and other key actors in design education. Representing designers in the project, Pekka Toivanen of Design Studio Muotohiomo edited the content and produced the layout and illustrations of the publication.

DIRECTORY

KEY ACTORS IN DESIGN EDUCATION IN FINLAND

Support and teaching materials for design education at schools can be found in the cultural calendar for teachers.

www.kultus.fi

ANNANTALO, CULTURAL CENTRE FOR CHILDREN AND YOUNG PEOPLE

Design and architectural education as part of art education for 0- to -18-year-olds

www.annantalo.fi

ARKKI, SCHOOL OF ARCHITECTURE FOR CHILDREN AND YOUNG PEOPLE

Broad-based basic art training in architecture and courses in architecture and design for 4- to 18-year-olds

www.arkki.net

MUSEUM OF FINNISH ARCHITECTURE

Museum visits, contents for architectural education and links to teaching materials for 4- to -18-year olds

www.mfa.fi

ARCHITECTURE INFORMATION CENTRE FINLAND

Expert organization in architectural education

<http://archinfo.fi>

DESIGNARKISTO

The Designarkisto design archive provides downloadable design exercises and a related guide for 6- to -18-year-olds.

www.elka.fi/designarkisto

DESIGN MUSEUM

Museum visits, workshops and teaching materials based on the museum's collections and online materials for 4- to -18-year-olds

www.designmuseum.fi

SUOMU – FINNISH ASSOCIATION OF DESIGN EDUCATION

Contents for education and cultural events, design facilitator activity and design education projects for 4- to -18-year-olds. A downloadable teacher's guide on design education for comprehensive schools

www.muotoilukasvatus.info

FINNISH ASSOCIATION OF DESIGNERS ORNAMO

More information on design education, key actors and contents: contact Ornamo project manager Petra Ilonen by e-mail at petra.ilonen@ornamo.fi

www.ornamo.fi

