



Subject Based Tactile Picture Sets

Collaboration between Valteri and Celia

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Our team

Valteri and Celia



Valteri Centre for learning and Consulting operates under the Finnish National Agency for Education.

Onerva, Valteri school, is one of the six units of the national Valteri Centre for Learning and Consulting. Onerva has expertise particularly in supporting the needs related to vision, hearing, language and interaction.



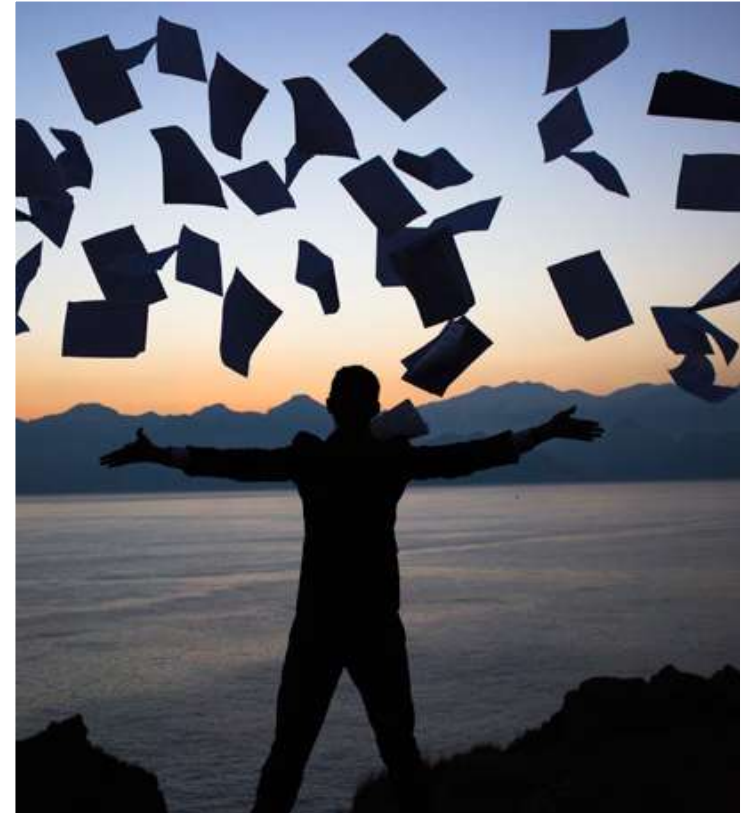
Celia is a national center for accessible literature and publishing in Finland, working toward equality in reading and learning. Celia produces and distributes literature in accessible formats, such as talking books and braille books, together with public libraries and publishers. Celia belongs to the administrative sector of the Ministry of Education and Culture.

We Got Started Because...

- Teachers gave feedback that there are too many tactile pictures included in the Braille books
- During a lesson a pupil has time to study only a couple of tactile pictures
- The schools don't have resources for selecting the relevant ones among the excessive amount of tactile pictures
- Producing and distributing a huge amount of tactile pictures for minor use is too expensive

What We Did...

- We weeded out the pictures significantly
- We chose the tactile pictures according to the emphases in the new Finnish National Curriculum 2016
- We both chose the tactile pictures from the Celia collection and had new ones produced



... and What Pupils Get

- Tactile pictures and maps for Braille readers on different grades in Primary level schools
- Versatile, easy-to-use tactile picture sets which have a potential to increase functionality in the classroom



... and What Teachers Get

- Colorful prints and key pages
- Hints how to use the tactile pictures in different ways
- Hints how to use the set in question

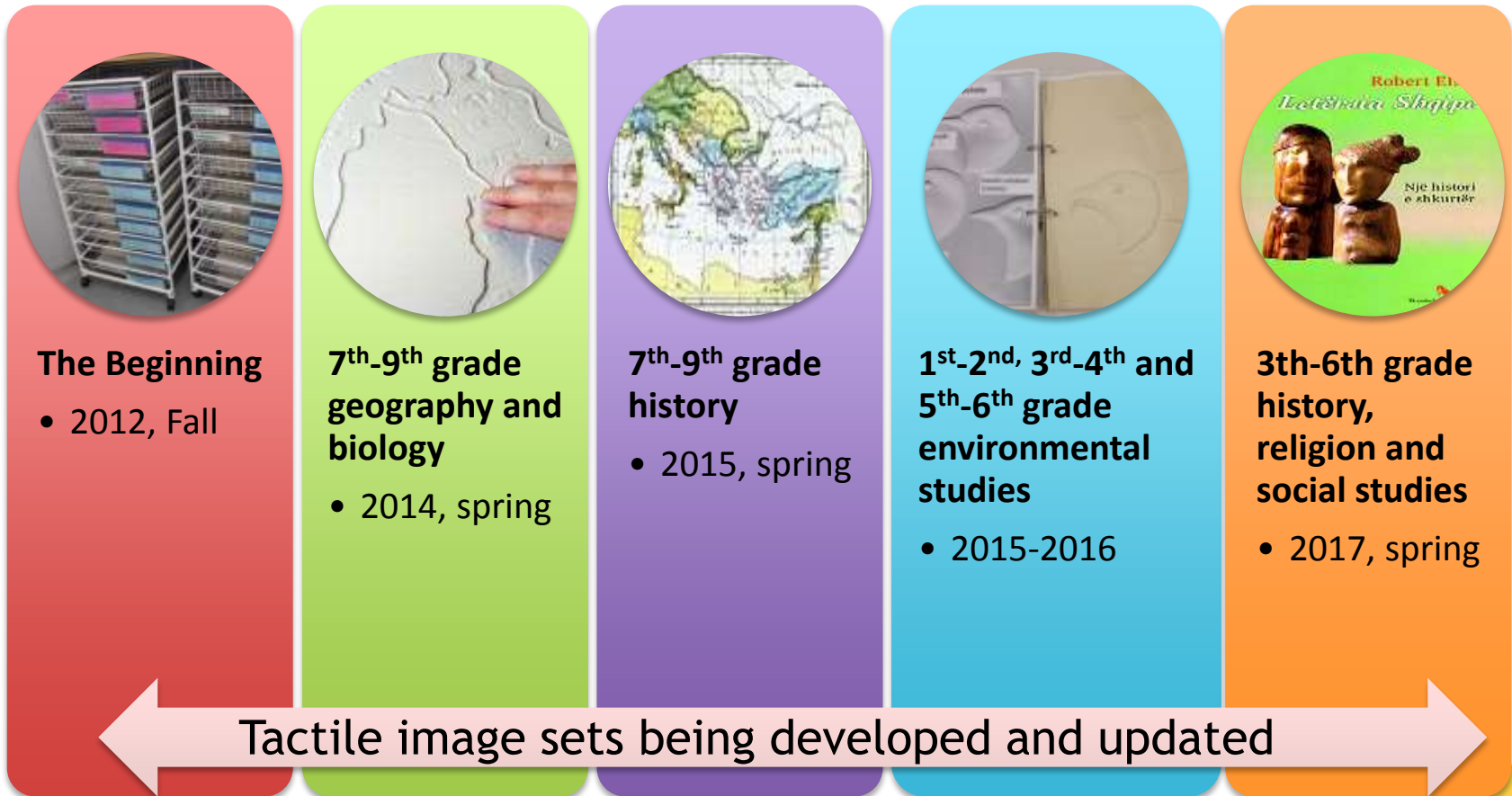


Subject Based Tactile Picture Sets

Generic and Compact Set of Tactile Pictures



Our flow



Selecting Pictures for the Sets

- The tactile pictures were selected considering the Finnish National Curriculum
- We reviewed all textbooks used on Primary level (Environmental studies, Biology, Geography, History, Social studies, Religion)
- We reviewed all pictures chosen from Celia's collection and made changes if needed
- If the needed picture was not in the collection, we had a new original made according to our specifications

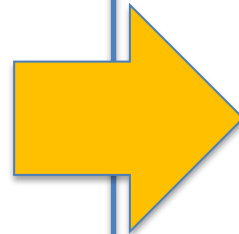


Tactile Pictures in the Sets



The original tactile pictures are hand made

Different surfaces and materials are used in the originals to introduce different things



A plastic copy is manufactured using the Thermoform method

Tactile pictures come in two sizes

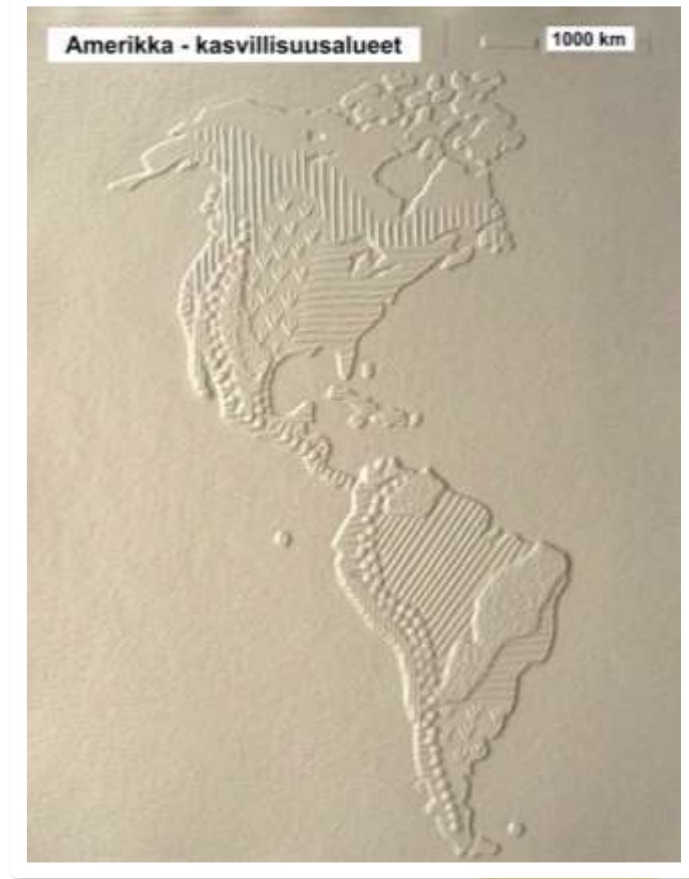
Sets for Elementary School

- Clear and simple tactile pictures of animals, human beings and plants i.a.
- The head of the animal on the left, the tail on the right
- Scale bar in the upper right corner
- Mostly small thermoplastic pictures, a few swell paper pictures
- Only a little Braille
- Tips for the teacher and the assistant how to use the pictures on various lessons
- Audio supplement included in the tactile picture sets for Environmental studies



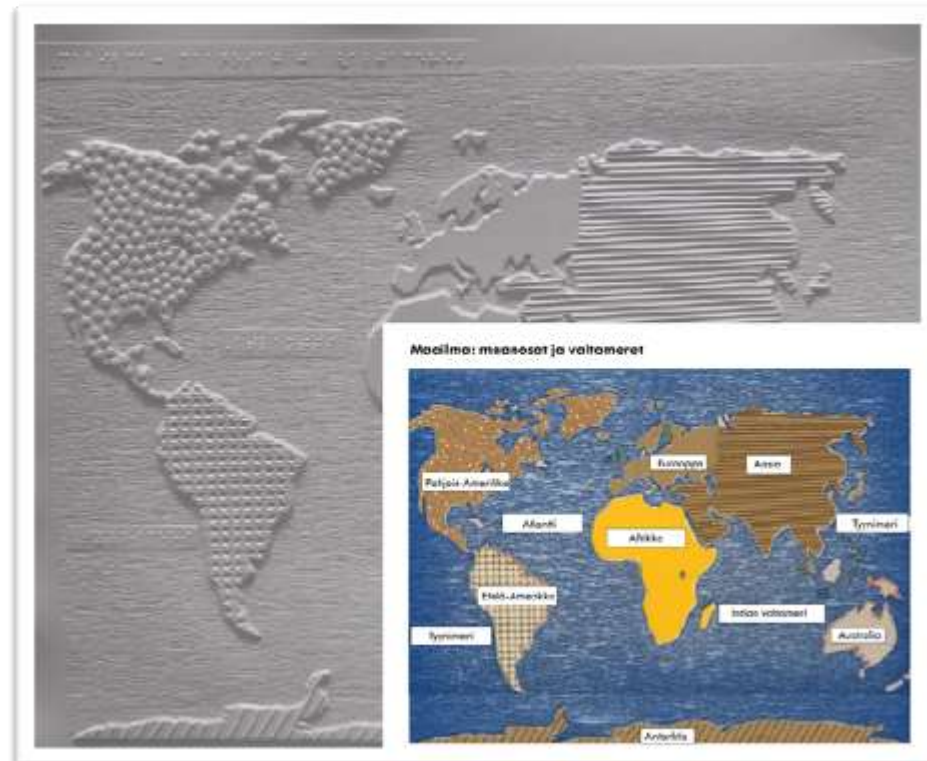
Sets for Upper Level

- Mostly large
Thermoplastic pictures,
some swell paper pictures
- Pictures get more difficult
by the grade
- More complicated maps
- More to learn

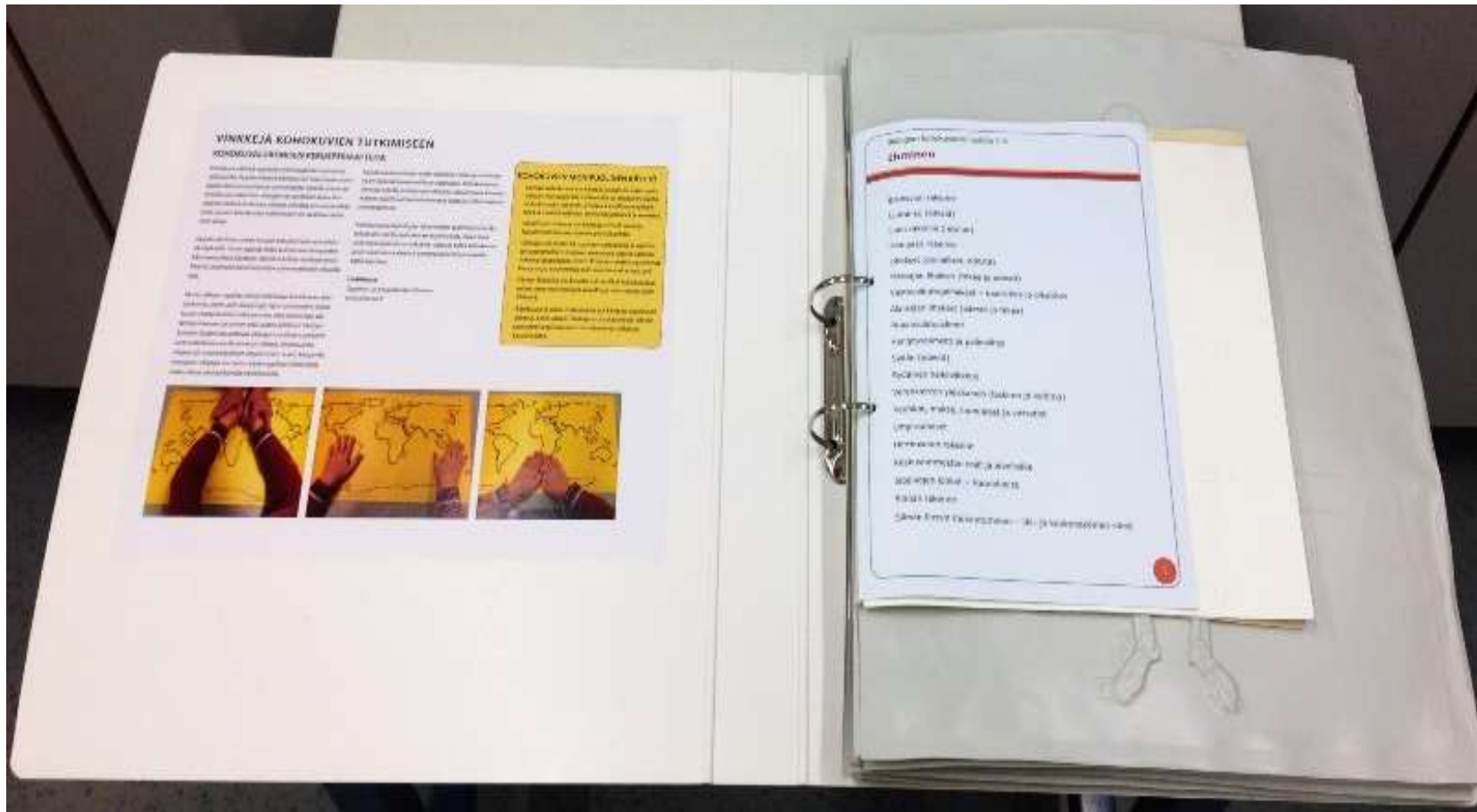


New Features

- Pedagogical tips included to support the use of tactile pictures.
- Colorful prints of the original tactile pictures
- Scale bars added to the pictures.
- Sound sceneries enrich the tactile pictures



General Hints ja Content



Pedagogical Hints for the Sets

- The principles of studying a tactile picture
- Practical hints for various subjects, like demonstrating the length of the intestines by a rope
- Functional hints for the whole class
- Using the tactile picture side by side with a scale model, e.g. the Eiffel tower
- Versatile use of the tactile pictures
- Utilizing the tactile pictures also in other subjects, e.g. Arts

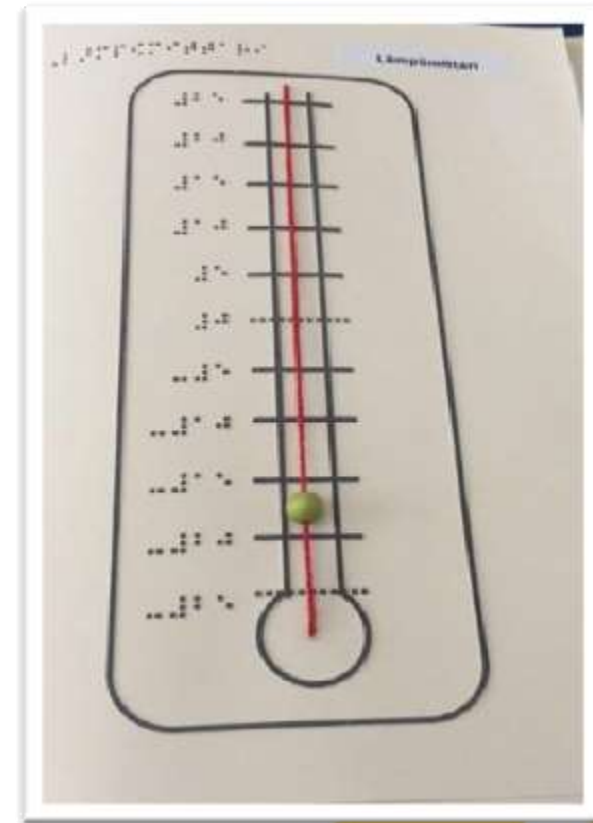


Increasing Activity

The Finnish National Curriculum (2016)

→ functionality

- Sticker exercises: *Place the animal or plant sticker to the correct wood picture*
- Simple games
- Adjustable thermometer
- Using tactile pictures and audio simultaneously
- Turning the Climate diagram to a table



Sounds → Enriching the Sets

- Sounds related to the pictures and themes of the tactile picture sets
- Tips how to use the sounds in classroom
- Using the tactile pictures with audio e.g. *You'll hear music from different continents. Please place the sticker on the right continent.*



The Encountered Challenges

- We were to utilize the existing tactile pictures as much as possible because of limited resources
- The distance between Jyväskylä and Helsinki is about 270 km
- Common ground was not found immediately
- Tactile picture sets were produced in addition to other work which caused timetable problems
- The instructions to create the original tactile pictures were not always understood



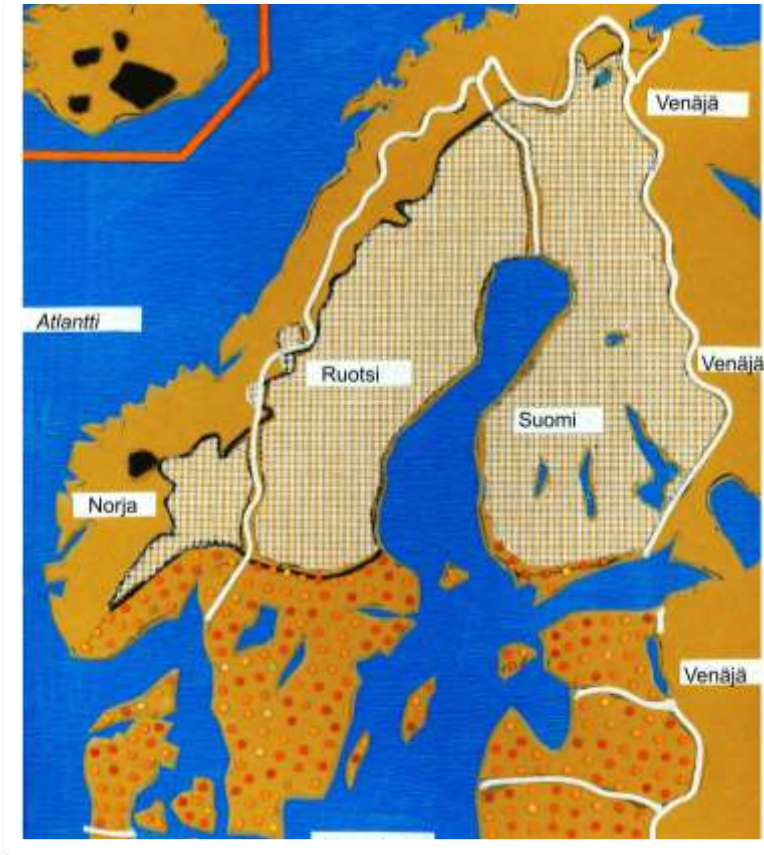
Towards Inclusion - Our Vision

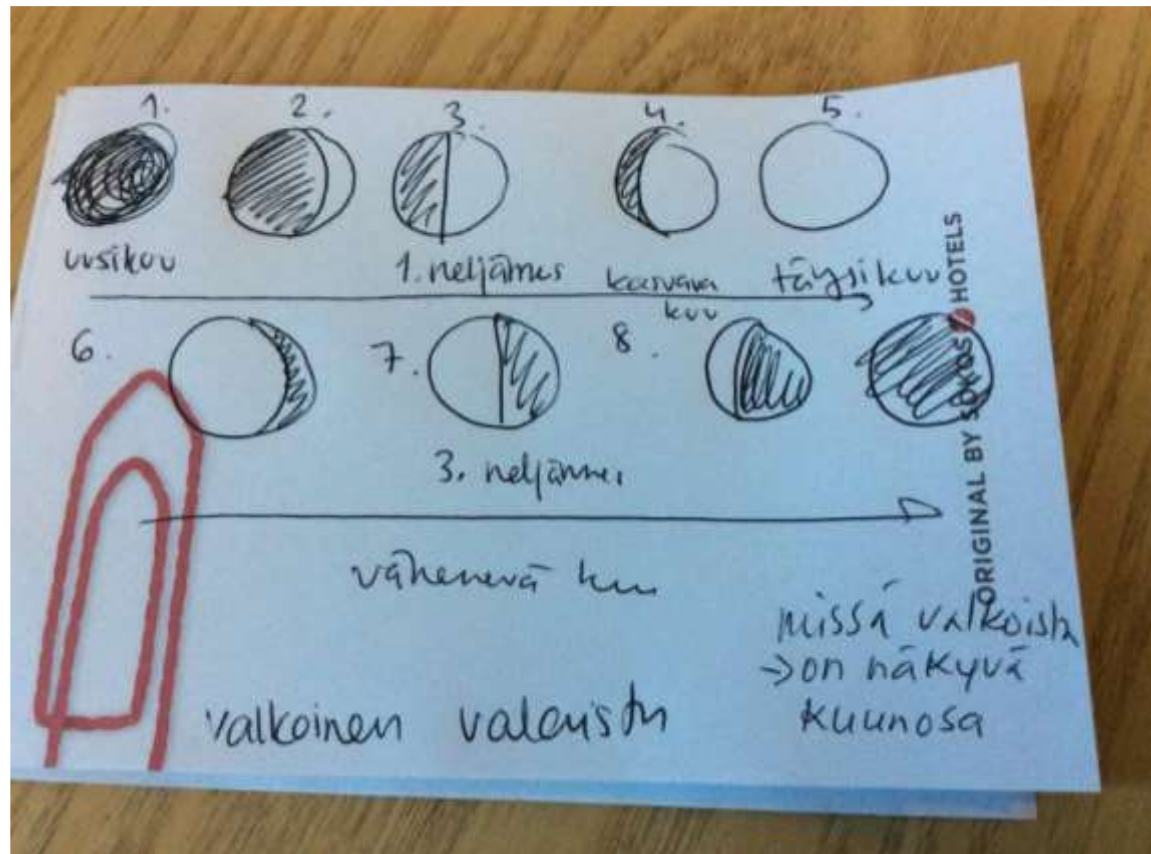
- Decrease the obstacles in learning and participation
- Enhance multichannel learning
- Using tactile pictures and prints together with the class
- Using the audio supplement for joined projects in the class



The Fruits of Co-operation

- Encounter of study material production and school world (was fruitful)
- Foundation to continue regular co-operation in other areas as well and to get concrete improvements and benefits
- Picture set of fairy tale and fantasy characters is being planned
- Plain language book and picture set is being planned





We also learn something...

Thank You!



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