

Finland

Taloista kaupunki [~ From Buildings to Cities] / 7 “bird watching towers” in Tampere, a learning environment pilot for architecture and built environment

This teaching model involves architecturally oriented learning, in order to strengthen the participation of city residents in city development and to improve the recognition of urban cultural heritage. Students (majority in grade 4 to 7) are encouraged to explore and describe buildings in their environment. Seven specific observation points have been prepared to make it easier for teachers to integrate buildings in the school work. Information about specific buildings is available for these observation points. Characteristics of the buildings are used in classroom exercises and discussions, for example in history or maths (historical function of buildings, calculation of surface, etc.). The students can enter their observations in a central online database with learning community, which connects several schools.

Main focus of Innovation: CONTENT, RESOURCES, ORGANISATION

Other keywords: blended, learning space, technology-rich

General Information

Name of the ILE: Taloista kaupunki [~ From Buildings to Cities] / 7 “birdwatching towers” in Tampere, a learning environment pilot for architecture and built environment.

Website: www.tampere.fi/taloistakaupunki

Rationale

Why do you suggest that it should be included in the project? How does it respond to 21st century learning challenges?

Taloista kaupunki learning environment aims at having the built environment as a natural learning recourse in the everyday school life. The future is in the integration of school and physical environment, the cause and consequence, the theory and practice. Spotting buildings and details can be an exercise by itself, but beyond that observing the built environment can be integrated widely to each school discipline and every grade. It can be a "win-win situation" for both; as well for the everyday school work as for the overall knowledge about our common built environment. And light the sparkle of interest when you are most open to it!

Evidence

Is there any evidence or indications showing that this initiative achieves the outcomes that it is aiming at?

"May we have a say, too, though we are so small?" asked the 3rd graders their teacher when eagerly rushing to the first field experiment. Even the first experiments showed how eager the children are to explore buildings and details. There was no effort needed to encourage or motivate them and they really wanted to have their say, too. The high motivation has been experienced throughout the whole project. Pupils enjoy the role of an "explorer and expert". Own experience and own point of view makes it interesting, makes one committed and encourages to think and act. It has proven to strengthen the abilities to get involved in and be responsible of the development of our built environment. Teachers of many disciplines have found the built environment versatily applicable for different learning objectives. The steering group of the project have now set a goal to develop a user interface also in English for learning languages and cultural exchange.

Learning Aims / Intended Learning Outcomes of the ILE

What are the core learning aims and which knowledge, skills or attitudes are to be acquired? (These may include outcomes related to learners' social, interpersonal, or meta-cognitive development)

The built environment can be a similar target of interest and a hobby, as the nature. The project generates inspiration, tools and methods for learning in and of the built environment. The learning objectives are based on different subjects' definitions in the Finnish National Core Curriculum for Basic Education. The main objectives in the built environment point of view are to provide architecturally oriented learning material for basic education, strengthen the participation of the residents in city development and improve the recognition of the cultural heritage.

When you feel the built environment being close and important to you, you want to take the responsibility for it, to take part in the decisions concerning it. You want to strengthen the characteristics and identity of your own neighbourhood.

Learners

Which group(s) of learners is it aiming at? Who is eligible to take part? How many learners are there? What are their ages?

Basic Education, main user grades 4th. – 7th.

The pilot project has been produced for the City of Tampere basic education. In Tampere there are about 30 schools for grades 1.-6., 4 special interest schools, 8 schools for grades 1.-9. and 8 schools for grades 7.-9.. Total of pupils in Tampere basic education schools is over 17 000, with over 7 000 on grades 4.-7.

In Finland there are about 3160 basic schools with over 500 000 pupils. Taloista kaupunki web service is planned to be extended to cover whole Finland.

Facilitators

Who are the teachers/facilitators? Who are the leaders? What are their professional backgrounds? What are their roles?

Steering Group:

Chairman Veli-Matti Kanerva (Development Director, Tampere City Education and Teaching Service Centre).

Members Anna-Marja Reinivaara (teacher, Tammela), Satu Sepänniitty-Valkama (principal, Pispa), Esa Parkkali (principal, Tammerkoski) and Norma Kiander (teacher, Amuri).

Specialists Veikko Vänskä (Chief of City Planning, City of Tampere) and Päivi Paananen (architect, Arkkivoltti Ltd)

The Project is a Co-Project of Tampere City Basic Education and Urban Environment Development. The Finnish National Board of Education supports the project financially.

Four basic schools in Tampere were involved in project development: Amuri, Pispa, Tammela and Tammerkoski.

Concept, design and production Arkkivoltti Design Ltd

Experts Cooperation: Pirkanmaa Provincial Museum, Cultural unit Vapriikki. EDGE City Research, Tampere University of Technology. The National Board of Antiquities. The Finnish National Board of Education. Tampere City Planning Services.

Organization of the ILE

How is learning organised? How do learners and facilitators interact? What kind of pedagogy do they follow? What curriculum is used?

Taloista kaupunki is an interactive web application, where personal observations are gathered in a central database. An online learning community is based on these observations of the individual users. The learning environment consists of both the virtual online community and the real built urban environment together. In this pilot phase, the focus is on suitable methods of work and content development for practical school usage.

Learning and the classroom work consists of getting the pupils interested in their own environment by observing it, bringing real life content into the teaching of the theoretical subjects. Learning the different subjects is assisted by observing the nearby buildings, using the observations for the exercises and discussions in classroom. For example history: Why did the multi-storey buildings replace wooden townhouses? Or maths: What is the relation of total window surface and the wall area? How to measure the real buildings and calculate different geometrics?

Seven specific observation points have been prepared to make it easier for teachers to integrate building spotting in the everyday school work. Each observation point has a learning package of information available online. Observing is to pay attention to how the building elements and details build-up the houses and how the houses build-up the city, what kind of shapes, colours and materials there are, what the buildings tell us about the time when they were built, what it is that interests you in buildings and how do the others experience the same environment. Observation information is stored in the database and viewed as observation cards. The observation points have overall views both past and present and a map of the area. Each building at the observation point is presented on a building card containing specific information of that house, its characteristic features, materials, history and so on.

The subjects - Crafts, Environmental and natural studies, Foreign languages, History, Mathematics, Mother tongue and literature and Visual arts - learning objectives as defined in the Finnish National Core Curriculum for Basic Education.

Learning Context

In which context does learning take place? What does the physical learning environment look like? Are community resources used to facilitate learning and how?

In Tampere seven specific observation points have been chosen and prepared to make it easier for teachers to integrate building spotting in the school work. These "birdwatching towers" are observation points to the city scape, buildings and details. The observations are not, however, restricted on the observation points, its equally possible to do the city spotting everywhere. Each observation point have a learning package of information available online.

The City of Tampere provides and hosts the web site with all learning material and observation database. Web site is open to be used by everyone.

History of ILE

Who initiated it? For what reasons was it started and with what purpose? Have these changed since?

In Tampere the project is part of the execution of the City Architectural Program with the main objectives in providing architecturally oriented learning material for basic education, strengthening the participation of the residents in city development and improving the recognition of the cultural heritage in Tampere.

Funding of the ILE

How is it funded?

30% funded by the City of Tampere, 70% The Finnish National Board of Education.

Learning Outcomes

What are the learning outcomes achieved by the ILE, including academic, social, interpersonal and meta-cognitive outcomes? How is learning assessed?

The learning outcomes are assessed as part of the normal evaluation of pupils' learning within each school subject. Observations, exercises and project outcomes can be stored online in the common database and retrieved for use by everyone.

From the individual point of view one's own experience and vision makes the built environment interesting, makes one committed and encourages to think and do - it strengthens the abilities to get involved in and be responsible of the development of our built environment.

Documentation describing or evaluating the ILE

Is there documentation on this learning environment? Is there a website? Films? Research reports or evaluations? Other forms of documentation? (please supply references or links)

Web site (in Finnish):

<http://www.tampere.fi/taloistakaupunki> - (login: demo tampere5)

Presentation in the Grasping the Future conference 1.10.2008 (3 MB PowerPoint):

http://www.arkkivoltti.fi/tk_material/Taloistakaupunki_GTF_20081002.ppt

Brochure (in Finnish):

http://www.tampere.fi/taloistakaupunki/aineisto/taloistakaupunki_esite.pdf

Speech by Minister of Education and Science (in Finnish):

<http://www.minedu.fi/OPM/Puheet/2008/10/Mediafoorumi.html?lang=fi>

Web article by The Finnish National Board of Education (in Finnish):

<http://www.edu.fi/page.asp?path=498,49890,88490,88506>

Newsreel (in Finnish):

http://www.yle.fi/media/asxgen.php?file=radiosuomi/tampereenradio/video/BONGAA_TALO.WMV

Other information you consider to be relevant to describe the ILE

About the idea of City Spotting:

Most people walking on the street don't have any notion of the buildings around. They may look at shop windows and street ads, mind the traffic and maybe people watch or just try to get through as fast as possible.

But the buildings are there. They affect our lives in many ways even if we are not distinctly aware of them. The recognition and knowledge of the details, history, materials or constructions just could make it more fun, more interesting and more useful, too.

The same happens also in nature. You'll probably feel how wonderful day it is when hiking in a forest on a sunny afternoon... But if you don't know WHAT to look for a little closer, you'll pass "the forest details" as well. So, as well there are "the birds and the bees"... there are the buildings, too!

The built environment can be a similar target of interest and a hobby, as the nature. You can spot houses, windows, entrances, roof landscapes or any peculiar detail just like a birdwatcher spots birds or a botanist collects plants. By catering knowledge, skills and appreciation you'll build up a condition for genuine passion and hobby. When you feel the built environment being close and important to you, you want to take the responsibility for it, to take part in the decisions concerning it. You want to strengthen the characteristics and identity of your own neighbourhood.

Taloista kaupunki aims towards the literacy of the built environment:

Observe, get interested in and find, evaluate and value our common urban environment.

Learn about the built environment itself and use it as a resource to learn about most anything.

Observing the built environment is easy, fun and useful! Learn to spot the buildings as a child and use them as a treasure box of learning for the rest of your life.

Look, have a notion and recognize. Learn about the built environment and use it to learn about most anything else, too.

The educational use of observation visits and registering the observations been followed up while performing the usage test in schools when the project that have been carried out in schools. Experience has shown that the observation visits are well implementable within 1-2 lessons. The time necessary for an observation visit depends on the accessibility of the observation location and the extent of the given learning task. Teachers particularly preferred organizing the visits in collaboration with two teachers and classes when controlling and tutoring the students is more flexible. Both at observation visits and the classroom computer work the students preferred to work in pairs, even though both made and recorded their own personal findings. Students were eager to question and discuss the subjects of the observations - bringing out their own opinions seemed to be very important to the students.

The use of observation forms during the visits clearly increased the amount and quality of findings. Several students also drew their findings, when the form made it faster to make the notes. Map of observation sites were understandable and simple enough to use for the students on the site and the map markings made it also easier to locate in detail each observation later in the classroom.

The comparison of having or not having the specific learning methods and materials was made between the first studies at the beginning of the project in February - March 2008 and last studies when project was almost finished in September.

The activity change in learning was assessed throughout the development period of the project. Starting situation was identified in the teacher interviews at the very beginning of the project in first quarter of year 2008 and the results were gathered with a questionnaire in April 2009. The participating school teams were assessed at each usage test performed during the development period. Uses of the website have been followed up from October 2008 to April 2009 with a special management interface.

The feedback questionnaire (April 2009) for project involved teachers contained 22 separate evaluation points.

As a summary based on the given answers:

Teachers perceived the developed approaches and methods to affect the students' knowledge of the built environment a lot and to some extent also to the interest in the built environment.

The appreciation of the built environment was increased either to some extent or a lot, as well as encouraging pupils to their own opinion formation and expression. Similarly, the project results were considered significantly increase collaboration among teachers, and providing for joint action in different disciplines as well as to influence the transition of teaching outside of school.

Respondents felt the observation visits to work well as part of teaching. The use of observation forms and the online registration website were considered well or very well functioning. The online learning recourses were considered to be either good or moderate, but there was hoped to be even more content. The web site was considered visually pleasant and easy to use and the reference material to be very well appropriate for teaching.

The teacher wished for development of more concrete, simple and easy to apply practical tips and approaches for school work. Especially for those teachers who might have either negative attitude for integration or are too timid to change their own methods or work. In particular, the pair work of teachers was perceived positive, the work flow gets easier and the motivation increases also among adults.