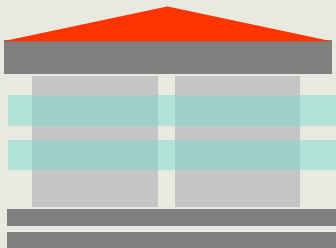




Mediating Places and Spaces

Grasping the Future



2.10.2008

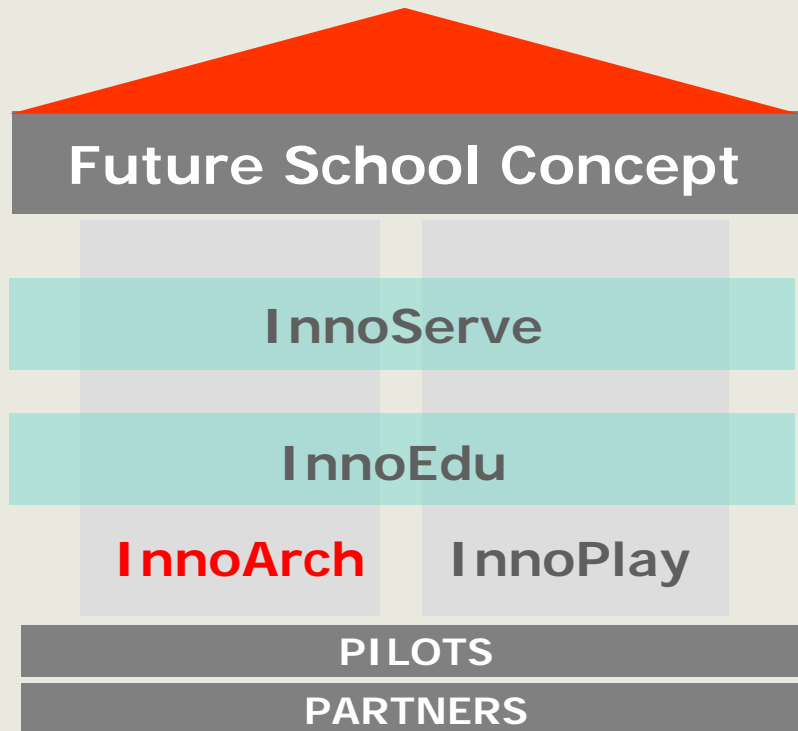
Aija Staffans

Helsinki University of Technology

Department of Architecture

InnoSchool

Innovations in Architecture, Education, Playful Learning and Services
2007-2010



University of Helsinki

InnoEdu

Faculty of Behavioral Sciences,
Center for Research on Teaching

University of Lapland

InnoPlay

Faculty of Education,
Centre for Media Pedagogy

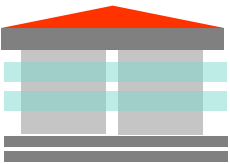
Helsinki University of Technology

InnoArch – Places and Spaces for Learning

Department of Architecture

InnoServe

Department of Computer Science
and Engineering, SimLab



InnoSchool Consortium

Research

Helsinki University of Technology
University of Helsinki
University of Lapland
Stanford University
University of California, Santa Barbara (UCSB)

Industrial Partners

Cramo Finland
Elisa
Lappset Group Ltd.
Martela Group
Microsoft

Municipalities

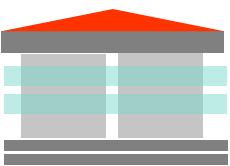
City of Espoo
City of Helsinki
City of Rovaniemi

Dissemination Partners

National Board of Education
Finnish Forest Industries Federation

Funding

Partners (20%)
Tekes – Finnish Funding Agency for Technology and Innovations (80%)



InnoEdu Research Frame

COLLABORATIVE PEDAGOGY

Students as
knowledge creators

Reflections on architecture and urban planning?

TE as a lifelong
continuity

OUT-OF SCHOOL LEARNING CONTEXTS

Integration to basic
education

FLEXIBLE CURRICULUM

Redefining formal
pedagogy

Project based
integrative content

INFORMAL

NONFORMAL

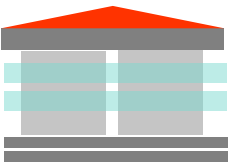
FORMAL

Pedagogies

Places and Spaces

Processes





InnoArch

Research Frame and Focus Areas

"Indoor studies"

Workshops for children and adults
Video monitoring and analysis
Interviews, www questionnaire
- Arkki/ Childrens' Architecture School
- Arabia School,
- Stanford Loft

**Space experience
- emotional -**

Usability analyses

Observation
Walk-through
Interviews
- Arabia School
- 20 schools

**Usability
- functional**

"Outdoor studies"

Local www forums

Product development
Interviews
Simulation
Workshops
- Kuninkaantie

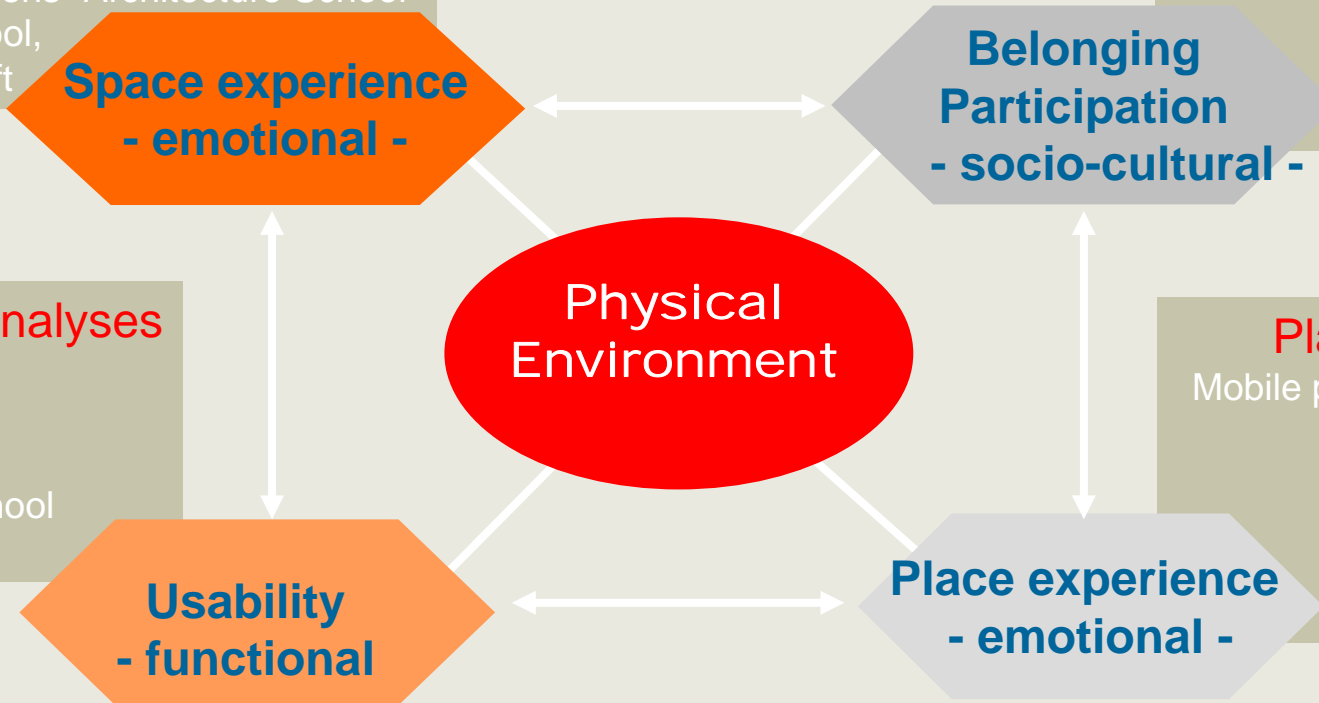
**Belonging
Participation
- socio-cultural -**

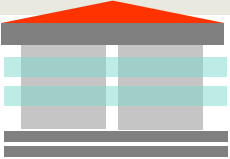
Place mapping

Mobile positioning, GPS
Picture Analysis
Interviews
- Arabia School
- Muurola
- Kuninkaantie

**Place experience
- emotional -**

**Physical
Environment**





InnoArch as a Co-developer

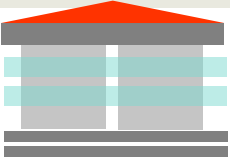


Opinmäki workshop

28.8.2008

for Espoo Educational Administrators

”Kick off for the planning process”



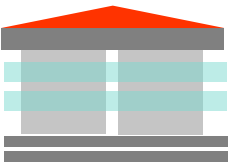
InnoArch as a Co-developer



ARKKI workshops
for children and young people
in ages 11-18

Autum 2007

Arkki=
Architectural School for Children and Youth

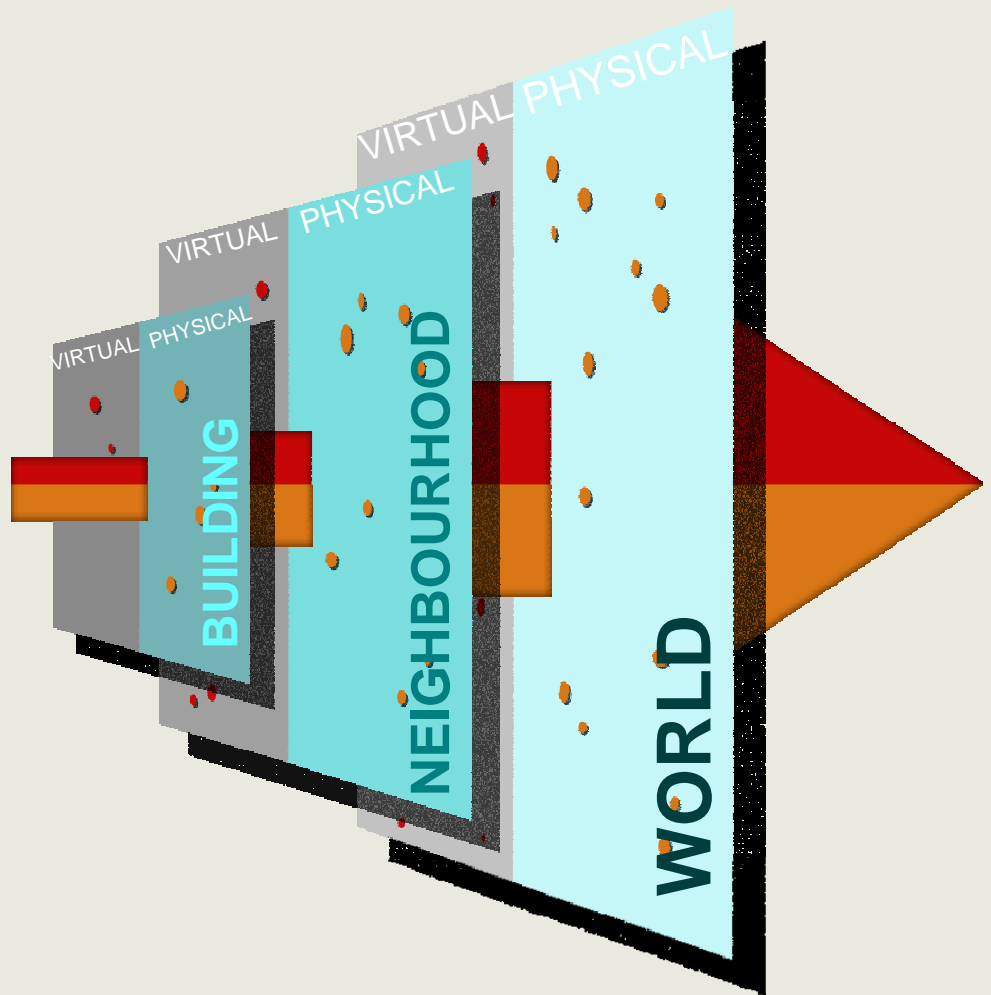


InnoArch Goals

Primary Goal: to deepen the understanding of the interrelationship between a spatial experience and a meaningful learning process (TSL)

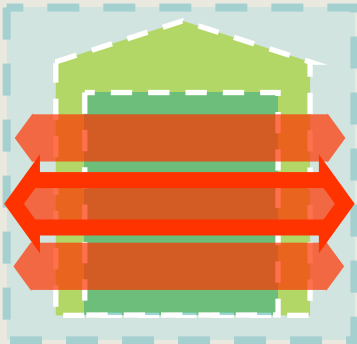
TSL* processes

Secondary Goal: to develop a collaborative, inquiry based planning and design process for the future school



* TSL= teaching, studying learning

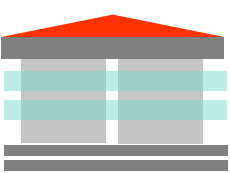
”Mediating Places and Spaces”



The question of the **class room**?

The question of the **neighbourhood**?

The question of the **virtual space**?



Mediating Places and Spaces 1

The Question of Class Room?

"Informal learning and the use of space?"

Mapping and monitoring the use of Arabia School together with InnoEdu



SA-3

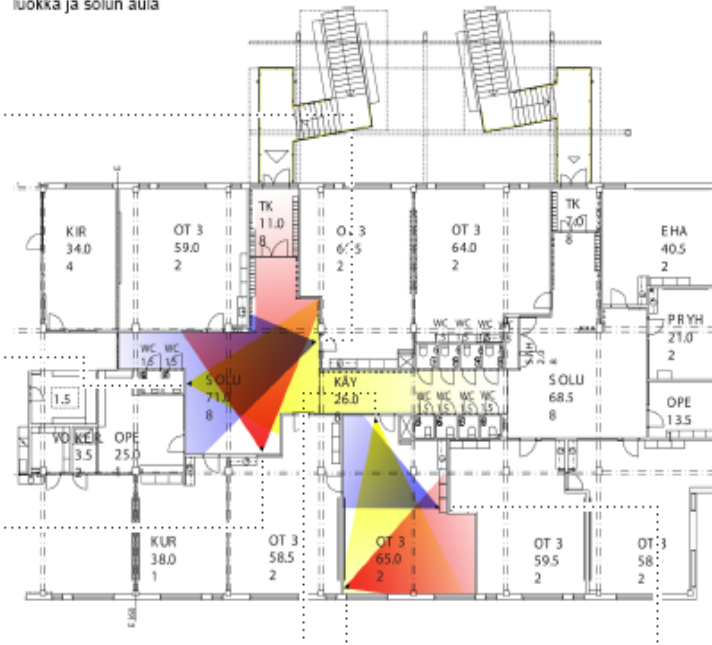


SA-1



SA-2

Kamerat, viikko 1/2:
luokka ja solun aula



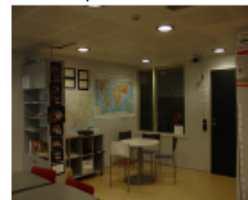
L-1



L-2



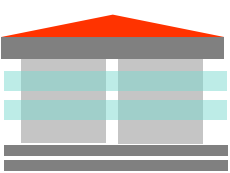
L-3



Class of 24 pupils
Age 10
Video observation in
the class room and in the
lobby for one week

Mapping events in
particular places in school
house;
identifying themes,
actions and practices;

Developing video-
enabled, evidence-based
research methods;
archiving, analysis and
representing the film
(Green&Skukauskaitė
2007; Elan & Monty)



Mediating Places and Spaces 1

The Question of the Class Room?

InnoEdu Studies: Informal Episodes in Class Room

Elan - 13_3_2008_A18_AP21_AP24_0930_9.eaf

File Edit Annotation Tjer Type Search View Options Window Help

c1 09:55:51.03

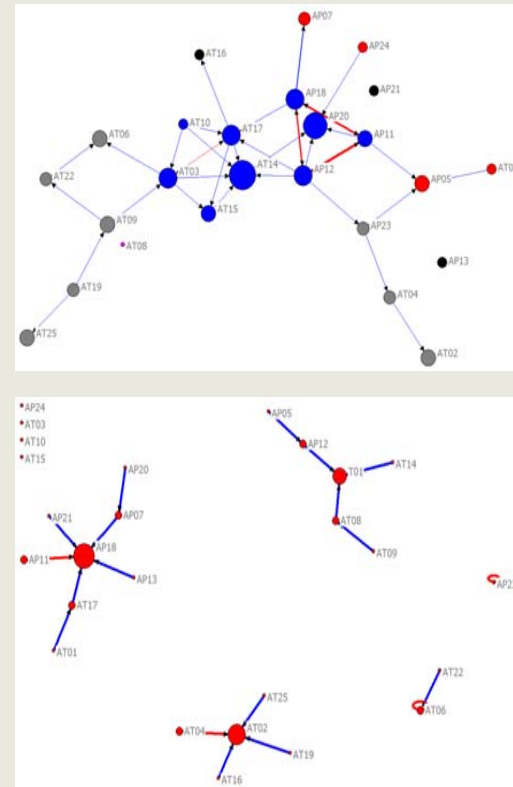
The screenshot displays the InnoEdu software interface. On the left, there is a video feed of a classroom with students at computers. In the center, a timeline lists 33 events with their start and end times. On the right, a network diagram shows nodes (AT01 to AT25) connected by lines, representing interactions. The bottom of the interface includes a playback control bar and a timeline scale.

Nr	Annotation	Begin Time	End Time	Duration
1	AP21 arrives and talks with R0...	00:11:24.086	00:12:58.586	00:01:34.500
2	...then discussion about constr...	00:13:01.609	00:13:36.609	00:00:35.000
3	...other pupils arrive ... discussi...	00:13:36.609	00:14:32.109	00:00:55.500
4	...waiting for the logon process ...	00:14:32.119	00:16:40.400	00:02:08.281
5	more pupils arrive... choosing ...	00:17:07.900	00:17:47.400	00:00:39.500
6	AT04 criticises the computer, s...	00:17:47.400	00:18:29.000	00:00:41.600
7	AP18, AP23, AP07 arrive...	00:21:08.983	00:21:26.768	00:00:16.785
8	discussion on the sports event ...	00:23:54.700	00:24:28.100	00:00:33.400
9	AP18 opens AP20's map, AP0...	00:24:34.700	00:25:09.100	00:00:34.400
10	AP21 asks for advice from R02...	00:25:09.100	00:27:23.800	00:02:14.700
11	AT03 asks a question, AT02, A...	00:28:26.900	00:29:06.300	00:00:40.400
12	AP24 leaves the seat, AP18 tal...	00:29:26.961	00:29:57.600	00:00:31.639
13	AP18 addresses AT04's work	00:30:09.325	00:30:31.325	00:00:22.000
14	AP18 initiates a discussion on t...	00:30:34.700	00:31:11.200	00:00:36.500
15	AP20 shows from his own displ...	00:31:11.220	00:31:16.813	00:00:05.593
16	AT25, 18 raises hand to get hel...	00:34:33.232	00:35:53.500	00:01:20.268
17	R01 reacts	00:35:53.500	00:35:56.600	00:00:02.100
18	R01 demonstrates for AP18 ho...	00:38:26.900	00:39:24.700	00:00:57.800
19	R02 asks R01 to demonstrate ...	00:39:24.700	00:41:30.300	00:02:05.600
20	T01 talks to the group (ending t...	00:43:04.099	00:44:01.100	00:00:57.001
21	T01 asks AP23 to invite three p...	00:44:01.100	00:44:08.543	00:00:07.443
22	More pupils arrive...	00:45:51.177	00:46:02.529	00:00:11.352
23	AP21 working with R01 and AP...	00:52:08.269	00:59:45.400	00:07:37.131
24	R01 demonstrates an operatio...	01:00:48.500	01:01:28.100	00:00:39.600
25	AT09 raises hand to get help	01:02:47.100	01:03:05.200	00:00:18.100
26	More pupils arrive and find sea...	01:03:12.200	01:03:39.100	00:00:26.900
27	new pupils arrive	01:21:05.500	01:21:19.100	00:00:13.600
28	Instructions from R01 to all pup...	01:21:37.700	01:24:00.200	00:02:22.500
29	AT06, AT14, AT17 use the chat...	01:24:47.451	01:31:02.318	00:06:14.867
30	AT25 HOLDS HER HAND UP ...	01:34:32.872	01:35:22.900	00:00:50.028
31	AT25 holds her hand up for att...	01:41:23.700	01:41:43.000	00:00:19.300
32	AP11 & AP12 chase and push ...	01:41:43.012	01:42:14.000	00:00:30.988
33	AT25 STILL holds her hand u...	01:42:14.000	01:43:20.322	00:01:06.322

00:38:29.665 Selection: 00:38:26.900 - 00:39:24.700 57800

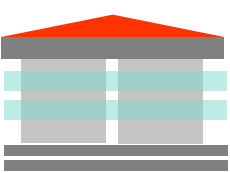
General [33] R01 demonstrates for AP18 how to use a feature...

BT: 00:38:26.900, ET: 00:39:24.700 R01 demonstrates for AP18 how to use a feature...



Source: Leena Krokfors 2008

What is the connection between space and learning - evidence?



Mediating Places and Spaces 1

The Question of the Class Room?



Higher Education in Stanford:

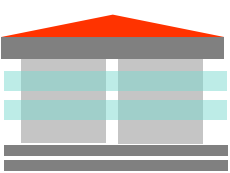
Multinational student teams working in a collaborative space called Loft
What makes the learning experience so special?

What is the connection between space and learning - evidence?



Source: Lilli Palasto 2008





Mediating Places and Spaces 1

Post Occupancy Evaluation in 19 Finnish School Buildings



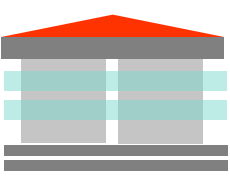
USABILITY

Evaluating building performance and looking for **activity spots** outside formal teaching facilities

Jukka Sulonen 2008

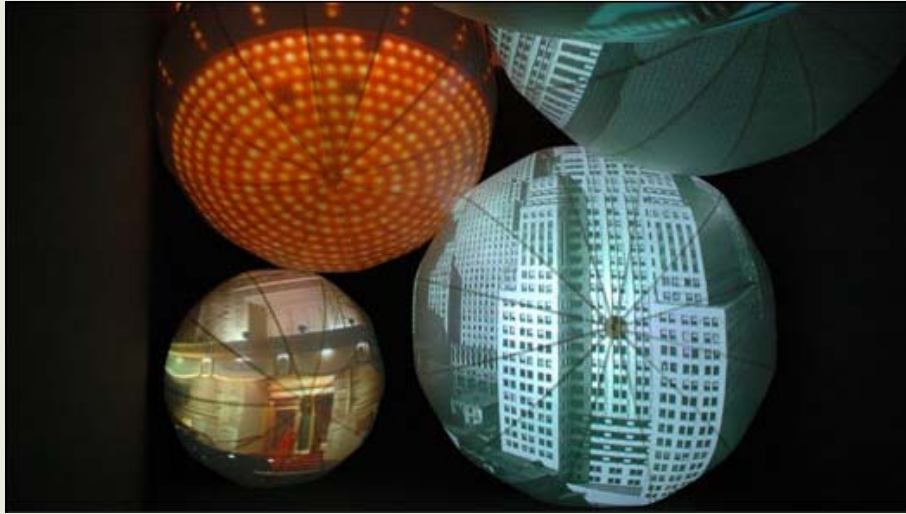


EXPERIENCE?



Mediating Places and Spaces 2

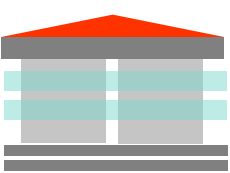
The Question of the Virtual Space?



Source: Imaginary Forces 2006 / Bubbles in the wine

SPATIAL INTENSITY

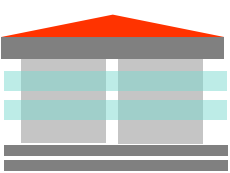
What Constitutes Experiential Space and
How We Perceive It
Arvi Mäkitalo 2008



Mediating Places and Spaces 2

The Question of the Virtual Space?

Augmented reality
- spatial flexibility in the learning environment?



Mediating Places and Spaces 3

The Question of the Neighbourhood?

Children as Environmental Agents in Helsinki and in Rovaniemi



Asking children about their perceptions, experiences and movement in the neighbourhood



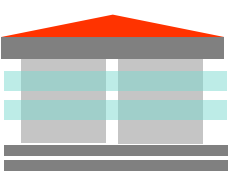
1. Mind mapping



2. Mobile mapping



3. Interview



Mediating Places and Spaces 3

The Question of the Neighbourhood?

Neighbourhood level environmental study by using mobile phone, GPS logger, Brieftec Binder software and GIS applications (Google Earth)

Source: Sirkku Huisko ja Reetta Hyvärinen 2008



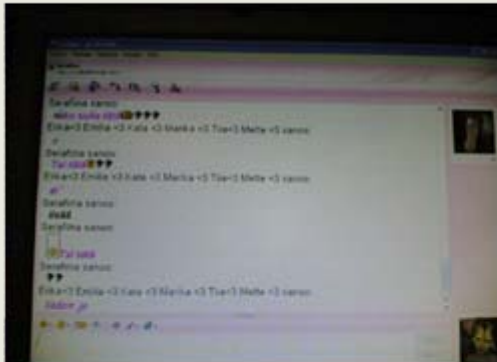
Details...



Pets and animals...



Unique hobbies and important elements of everyday life...

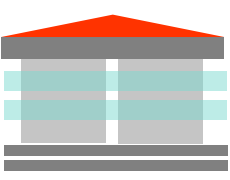


Reetta Hyvärinen 2008

Social gathering e.g. shopping malls...



Reetta Hyvärinen 2008



Mediating Places and Spaces 3

The Question of the Neighbourhood?

Kuninkaantien Koulufoorumi
Kuninkaantie School Forum (www.koulufoorumi.fi)

Luo Oma kohde

School Forum is

- a mediating virtual space between the school and the local community and

- a learning environment and publishing platform for project based TSL

5 schools, project groups in art, literature, physics, history

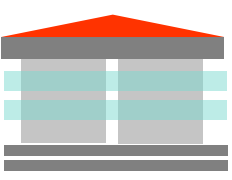
Selaa Hae Lisää oma kohde Ohje



Sharing the School Forum with the Mesa School, Santa Barbara?



IN FINLAND



Mediating Places and Spaces 3

The Question of the Neighbourhood?

Espoo Opinmäki Learning Campus

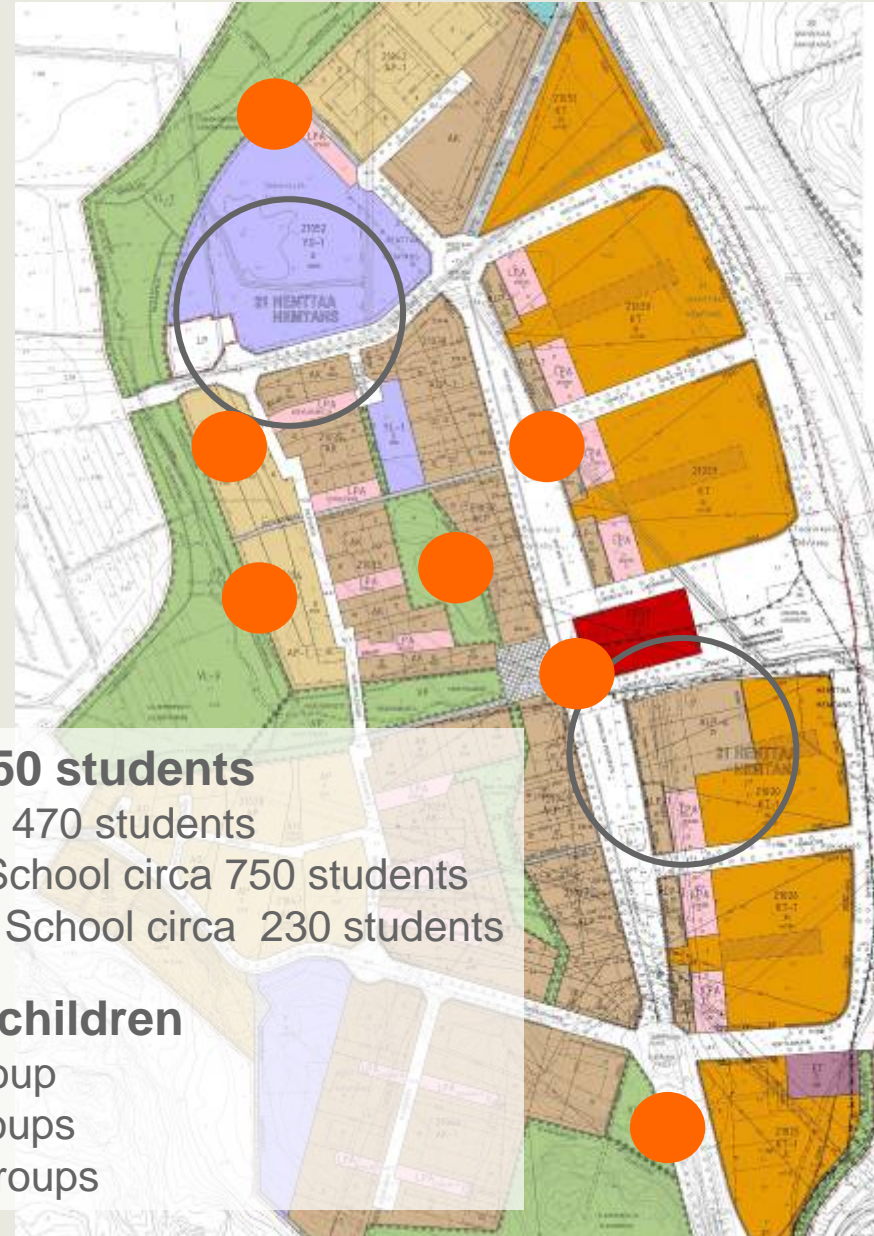


Education: Place for 1450 students

- International School circa 470 students
- Finnish Comprehensive School circa 750 students
- Swedish Comprehensive School circa 230 students

Day care: Place for 120 children

- Day care in English: 1 group
- Day care in Finnish: 4 groups
- Day care in Swedish: 2 groups



A Learning Neighbourhood?

