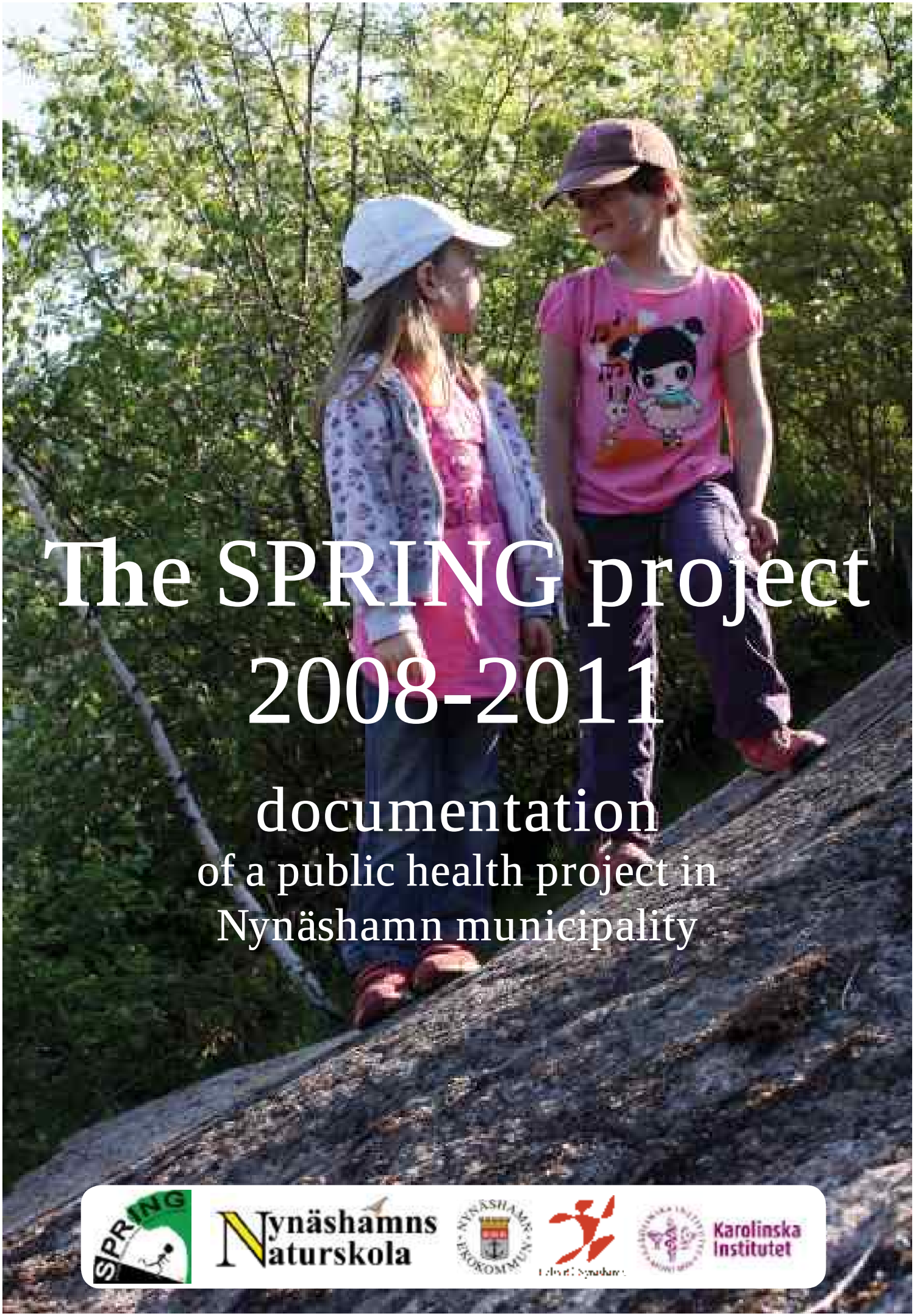


The SPRING project 2008-2011

documentation

of a public health project in Nynäshamn municipality

Nynäshamns Naturskola

Karolinska Institutet

Nynäshamns Naturskola

Hälsa till Nynäshamn!

Karolinska Institutet

SPRING

Contents

Text and photo: Robert Lättman-Masch och Mats Wejdmark, Nynäshamn Nature School 2012

Nynäshamn municipality
Nature School
149 81 Nynäshamn

Phone: Mats: 08 520 737 09 Robert: 08 520 737 08
mats.wejdmark@naturskolan.pp.se
robert.lattman@naturskolan.pp.se
www.nynashamnsnaturskola.se
www.nynashamnsnaturskola.se/spring
www.nynashamn.se

Thanks to
- Nynäshamn municipality and the departments that have participated with representatives in the steering group (Department of the Executive Committee, Department of Environment and Community Planning, Department of Childcare and Education) .
- Cecilia Boldemann at Karolinska institutet and Sofia Kvist Lindholm, coordinator for Equality in health, who joined the SPRING working group.

Summary

The SPRING project was a public health project in the municipality during 2008-2011. SPRING is short for Shadow Pedagogy Activity (”R” for ”Rörelse” in Swedish) in Nature and (School) Ground environments. SPRING also means to “run” in Swedish and “spring” in English – now it’s “spring” time for a new way of seeing our children’s and pupils’ outdoor environment.

Nynäshamn Nature School has been the project leader and an overall steering group on department level has made decisions about different actions during the project. Karolinska Institutet has been a partner during the whole project time and responsible for the scientific part of the project. They have been interested in how work for public health, based on research results (SCAMPER), can be done in a municipality. SPRING is part of a bigger international project called Kidscape.

The actions implemented have been characterized by a democratic process meaning that the staff at schools and preschools and the pupils have taken part to various extent. The actions have mainly been annexation of fields nearby, plantations of trees and bushes and setting up different installations. Common for the actions have been to stimulate increased physical activity and provide more shades in exposed areas. According to the SCAMPER study, bigger areas with shades also lead to more physical activity.

The project goal is considered well achieved. The area with vegetation has increased, although segmenting fences are still there. The open sky view area has been decreased thanks to the annexations done, which in turn requires that the children’s play has been moved to the new places. The open sky view area will be futher reduced when the newly planted trees and bushes grow. Examples show that SPRING is already considered when planning work in the Nynäshamn municipality.

The project has provided several lessons through the process and the result. For example, many of the expectations were not fulfilled, there have been communication problems, a slowness in work and lacking information.

The successes of the project are, for example the annexation of land that has been cost efficient, enabled by the project being cross-departmental. The knowledge about the schoolgrounds’ importance for children’s health has increased, a lot thanks to the cooperation with Karolinska Institutet. The project got a good start thanks to several engaged actors.

At the end of the project time, and which will be continued after the project, implementation in the regular work was initiated. The work is done in several areas and can be summarized with three words; safety inspection, database and education.

Background

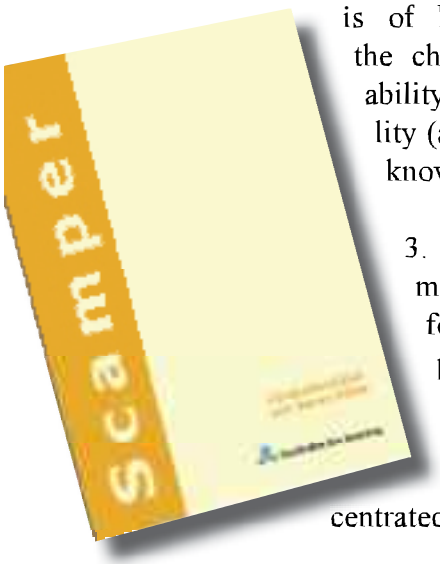
A reorganization was carried out in Nynäshamn municipality in 1993. The Housing Administration was at that time closed and the responsibility for the properties, including schoolgrounds at schools and preschools, was transferred to the principals and heads of preschools, meaning, roughly, that schoolbooks and other eductional materials must compete against maintenance of the outdoor environments when the budget was set.

In practice this meant that maintenance of schoolgrounds actually stopped. In 1997 Patrik Grahn published his research report ”Outdoors at preschool” where he showed that the outdoor environment is of importance for the preschool children’s motor skills, sickness absence and concentration abilities. During 1999-2000, Nynäshamn Nature School carried out environmental training programs for everyone within the schools (5 days) and preschools (2 days). Patrik Grahn’s research was raised and the environmental representatives within the preschools’ network started expressing requirements for the Nature School to help developing the schoolgrounds.

The preschool project therefore started in 2001 and it ended in 2003. Funds, so called investment money, were granted Department of Childcare and Education to the project for the years 2003-2006. That was the beginning of the subsequent school and preschool project 2004-2006.

The SCAMPER study was published in 2006, with the following conclusions:

1. The outdoor environment is a major factor of UV-radiation and physical activity; that is, a stimulating schoolground provides both more activity and protection against sunshine (at least 50% of all cancer is skin cancer and 85% of all skin cancer is caused by UV-radiation).



2. The outdoor environment is of huge importance for the children’s concentration ability and cognitive ability (ability to practice their knowledge).

3. The outdoor environment is of importance for the length of the play sequences and for how many conflicts arise (which in turn depend on how concentrated the children are).

Criteria for a good schoolground was created in SCAMPER. These criteria were the base for the SPRING project. SPRING has been part of a bigger international project, named Kidscape. More to read about this is found in Appendix 5.

The idea of the SPRING project from Karolinska Institutet’s point of view was to study how public health work based on research results (SCAMPER) could be implemented in a municipality. They have particularly been interested in the process. The Nature School’s starting point was to continue the started work of developing the schoolgrounds for the purpose of better health and learning for children and pupils in the Nynäshamn municipality.

Previously the Nature School was involved in the development of Viaskolan’s schoolground. During the years it became obvious that many schools and preschools are totally dependent on enthusiasts when it comes to development of the schoolgrounds. This is sad since the work is then relying on a very thin line. When the enthusiast stops, the work also stops. Therefore the development work should be approved higher up in the school organisation for a continuity of the work.

During the reorganisation 2006 the Housing Administration was rebuilt, but now as Property and Service under the Department of Environment and Community Planning. The responsibility for the outdoor environment and their maintenance are no longer dependent on principals and preschool managers. Instead the schools and preschools are tenants and all actions to be done on the schoolgrounds must be approved by the Property and Service.

A folder that was written in the beginning of the prject as information to teachers, preschool staff, managers, parents and other interested people.

Criteria for preschool environment to promote physical activity and sun-protetive behaviour

www.folkhalsoguiden.se/kidscape

Criteria	Suggestions for action
Area preferably exceeding 3000 m² (33000 square ft.)	Incorporation of adjacent nature/woodland
Space for romping and running, i.e. give the children a chance to ”pick up speed”	Remove high fences segmenting the outdoor environment. For segmentation, barriers of natural material may be used which are high enough to stop toddlers, but can be effortlessly “forced” by 3-5-year-old children
Between half and two-thirds of the area be hilly and vegetated with trees and shrubbery that children use in their play	Flat ground may be broken up with e.g. logs on the ground, big piles of earth (e.g. excavated material), bushes, free-growing brushwood, and saplings. Use e.g. large objects, e.g. logs, or discarded tractor tyres to clutter the environment. Though aesthetically less attractive it is a fine play environment for the children
The open sky view be less than 50% (prefereably tree crowns and bushes cutting the view) from positions that children usually use for play (e.g. fixed play equipment and favoured play locations).	Play equipment to be placed in a way that they are shaded by trees between 11 am and 3 pm, save vegetation that is used for play. Free space for e.g. soccer is preferably placed east-south-east of the building
Popular play equipment be integrated with nature (trees, shrubbery, stones)	Play locations that are well integrated with nature need not be attended to, for children playing in such locations the sky view is generally below 50%, e.g. ropes at low height between the trunks of trees
Passages giving access around, between or through buildings (e.g. between walls of buildings and fences), and passages that connect different play environments (behaviour settings), i.e. create connectivity (an important aspect in cases where adjacent land cannot be incorporated)	Create paths among trees and thickets (unless trodden by the children themselves) Build fences at least half a meter (2 ft.) off the walls of buildings or sheds instead of attaching them right to the walls, and plant bushes at least half a meter (2 ft.) away from the walls of houses
Safety from traffic and criminality	High fences/palisades around the whole areas that belong to the children

An outdoor environment where there is enough vegetation, the children can be outdoors the whole day without risking radiation damages and at the same time the skin will be able to produce the daily need of vitamin D.

SPRING starts in 2008

The project started during spring after decision taken in March by the municipal government (KS) to get funds for 2008. A work group and a steering group were established. Nynäshamn Nature School was appointed project leader.

The selection

Four schools and seven preschools were selected in April 2008 to praticipate in the project; that is, the following: Svandammsskolan, Kyrkskolan, Vanstaskolan, Vika skola, and the preschools of Vaktberget, Humlan, Skogsnibble, Viksängen, Fagervik, Vika as well as Segersäng, which had already participated in the project as pilot study.

The selection was done within the steering group based on aerial photos and experience from the schoolgrounds' constitution. The Nature School has for many years been working with schoolground projects and has knowledge about where actions are needed and on which schools and preschools the staff needs help.

The Nature School contacted all the selected schools and preschools and the concerned principals to get ok about participation in the project. A list with preconditions for participation and an information folder were handed out as a basis for their decision (see appendix 4). All the prinicpals and their staff accepted.

Information about SPRING

The Nature School and Sofia Kvist Lindholm (coordinator for ***Equality in health***) informed about SPRING at FYSAM on March 12, 2008. FYSAM was a meeting place for work with health-encouraging physical activity where the previous Center of Public health was the convener.

The Nature School informed all the principals in the municipality about SPRING during the principal's meeting on April 25, 2008.

Cecilia Boldemann held information meetings during the autumn at schools and preschools where she told about the project and the research, SCAMPER, which is the foundation of the project. The target group was the staff and she visited all participating schools and preschools.

A folder of eight A5-pages was produced during the spring and 3500 copies printed to be handed out during the year to concerned staff and all the parents of the children in the participating schools and preschools.

In October 2008 the work of creating a website about SPRING started: www.nynashamnsnaturskola.se/spring/. That's where all the information of interest for the public and other municipalities has been published continuously during the project time.

Collaboration portal

Through the so-called collaboration portal, which has been located on the municipality's server, all the steering group members have been able to access all the documents published there. As a project leader the Nature School published most of the documents there, such as agendas, minutes of meetings, plans, drawings and other materials related to the project. An exception was the process description.

Photo documentation

The Nature School photographed all schoolgrounds during September 2008. These photos were planned to be kept as a comparison when the project was finalized after three years. The changes visible on the photos could then also be related to the changes visible in the staff surveys. Since the project was unique of its kind it was also important to get a good picture base for future presentation in various contexts.

Property information

Some of the criteria to be fulfilled to create an environment stimulating physical activity outdoors were for the yard to be big, hilly and with a lot of vegetation. One way to achieve this was to incorporate land outside the schoolground. Therefore the work that Ida Olén, the planning architect at the Department of Environment and Community Planning, implemented was important. She clarified the boundaries of the

properties that the preschools and schools were located. In many cases the drawings of the detailed plans did not match reality. She also clarified the ownership of the land neighbouring all the schoolgrounds.

Segersäng preschool – a pilot study

The preschool in Segersäng was ready in Januari 2008. When the drawings were done on how the building and the outdoor environment were supposed to look like, the SPRING ideas had not yet been established. The preschool was planned as most other preschools; with a front and sandboxes for the smaller children towards south and a yard built with play installations and plantations on a flat ground. After information from Cecilia Boldemann about the SCAMPER study, decision was taken to make Segersäng preschool a pilot preschool where the SPRING criteria would be implemented already at the planning stage. It resulted in changing the drawing by turning the building 180° and the forest ground behind was incorporated and became part of the yard. In doing this, the play installations could be integrated with the natural vegetation and thus give shades and preconditions for physical activity.

On February 21st, representatives for the SPRING working group-to-be visited a parents' meeting on Segersäng preschool and informed about SPRING and SCAMPER.

Organisation

Steering group

One of the main ideas with the SPRING project has been the cross-departmental way of working. The steering group consisted of Nynäshamn Nature School representing the Department of Childcare and Education (BUF) and has also been the project leader. The property manager represented the Department of the Executive Committee (KSF), a planning architect as representative for the Department of Environment and Community Planning (MSF) and a development manager for public health issues and a coordinator for *Equality in health*. The last ones are both from KSF.

From the beginning there was an idea about having an inventory group connected to the steering group. These two groups soon became one when the project started. Here were more representatives from BUF, a person from the Park unit representating the Technical section and a representative from the Property unit, as well as Cecilia Boldemann from Karolinska Institutet (KI). The Nature School was also part of this group. The inventory group would work together with the staff at relevant school/preschool.

All along the project has depended on some few

engaged people. Only two of ten have been in the project from beginning to end. Three have been on parental leave, four have left their jobs and one has passed away.

SPRING Working group (WG)

The working group consisted of Mats Wejdmark and Robert Lättman-Masch at Nynäshamn Nature School, Cecilia Boldemann at Karolinska Institutet and Sofia Kvist Lindholm, coordinator for *Equality in health* (KSF). The purpose was to prepare questions for the steering group to consider and to discuss the scientific part of the project. It was this group that discussed the surveys to the staff before the project and the planning of training in the beginning of the project.

Democratic process

The ambition in the SPRING project has been a democratic way of working. Meaning that staff and pupils have been part of the process and have had the opportunity to give their opinions and make drawings within the frame of the project goal. The schools and preschools have been able to do "wishlists" with 10 issues in priority order. The process of collecting these wishlists took a long time, which is actually the nature of democracy.

Actions providing more shades and physical activity, which have been asked for by the schools and preschools, have been approved within the budget frame

by the steering group. Wishes outside these areas or even against the goals of the project have not been approved by the steering group. Annexation; that is, incorporation, of land outside the schoolground has been prioritised since it is cost efficient. To incorporate land outside the schoolground often provides an immediate achievement of several critera for a good schoolyard or playground.

Consultants

In some cases consultants have been hired to provide ideas and drawings. In these cases decision was taken by respective school or preschool to use parts of the SPRING funds for this. The landscape architect Anna Lenninger made drawings for Kyrkskolan, Svandammsskolan, Vika school and Humlan preschool.
Anne Eriksson, who attended a gardener education at Öknaskolan in 2008, made a drawing (project plan) for Fagervik preschool.

In cooperation with the National Public Art Council, the artist couple Folkform (focusing on industrial design) was hired to illustrate parts of Vanstaskolan's schoolground.
It is important to point out that these drawings are valuable for the future. All ideas from these drawings were not possible to implement because of the project's limited funds. Since the SPRING ideas will continue to live and be implemented in the regular work, these drawing are valuable documents to use for future planning and continuous development on these schools and preschools.

Economy

Investment budget

When the project started there was only the money left from the investment budget for the years 2003-2006, which, for different reasons, had not been used in the previous school and preschool project. That money was distributed on the different profit centres and could, by the goodwill of their managers, be transferred to the schools and preschools that had been selected to paticipate in the SPRING project. Thus, some actions could be done during 2008 even before the public health funds had been allocated.

The public health funds

During several years Nynäshamn municipality has been working on different public health projects. The municipality invests about SEK 8 million per year. With help from the development manager for public health issues, the Nature School applied for funds to the SPRING project. In the beginning, these funds were deposited on an account at the Department of the Executive Committee (KSF). Later in the project the Nature School was trusted to keep the money on their own project account. The funds for the SPRING project were during the years; 2008: 125 000 kr, 2009: 625 000 kr of which 500 000 was for investments on schoolgrounds, 2010: 530 000 kr of which 380 000 was for investments on schoolgrounds, 2011: 340 000 kr of which 160 000 was for investments on schoolgrounds. Totally 1 040 000 kr was allocated during three years for investments in schoolgrounds.

Vanstaskolan	130 000
Svandammsskolan	120 000
Kyrkskolan	100 000
Vika skola	100 000
Humlan preschool	90 000
Skogsnibble preschool	90 000
Vaktberget preschool	90 000
Fagervik preschool	80 000
Vika preschool	80 000
Segersäng preschool inaugurated Januari 2008 (inv. within the frame of new constructions) and ready 2011	160 000
Total investments	1 040 000

Project management, information, education, process description, documentation, evaluation, national and international

spreading experiences, printed materials	525 000
Development of work routines	55 000
Total for SPRING	1 620 000

The project in Vanstaskolan

The funds allocated for Vanstaskolan within the SPRING project were not used completely during the project time since a cooperation with the National Public Art Council started. The project in Vanstaskolan can be seen as a spin-off from the SPRING project. The artist couple Folkform, which was recommended by the National Public Art Council, has in cooperation with the pupils in the school and through workshops, made drawings on how the schoolground could be designed and partly what the facade could look like. In addition to the remaining funds from the SPRING project of 80 000 kr, extra funds have been applied for from the municipality. 290 000 kr has been allocated from funds to be used for renovation of public environments in the municipality. Therefore focus is on the design in the border area between the schoolground and the neighbouring land. The National Public Art Council has allocated 139 000 kr as salary for the artists.

Stockholm County Council

During the project time Stockholm County Council paid for the SPRING work of Cecilia Boldemann. She contributed with the scientific part of the project. Stockholm County Council also paid for Sofia Kvist Lindolm's work in the project. She was the coordinator for *Equality in health* and will be the main responsible for the scientific article that is to be written about SPRING.

Cost example

- A tree of 4 m, chestnut, incl. transport, digging (in asphalt), soil, plantation, support and safety frame 12 000 kr
- A tree, poplar, incl. everything 3800 kr.
- Stairs built by the pupils at the Construction course in Gymnasiet (for Vaktberget) 15 000 kr
- A bush plantation 20 m² incl. everything 4600 kr
- Fence for annexation of land. 117 m 45 000 kr (Skogsnibble)
- Sun protection (four poles and canvas) 14 000 kr plus installation 6000 kr (Skogsnibble)

Actions on the schoolgrounds

Decision about the actions to be implemented on the schoolgrounds were taken by the steering group. Basis for decisions was the criteria for a good schoolground (see page 5), the schools' and preschools wishlists and the financial frames. More about these actions can be read on page 22 and in the photo documentation from page 23 and onwards.

Process description

The only document that was not added on the collaboration portal is the process description. It is mainly a diary that the project leader; that is, the Nature School, has written all along the project. Its function was like a black box that was not opened until after the end of the project. Researchers connected to Karolinska Institutet studied the content, intended to result in a scientific article. The article is to focus on a municipality's actions when implementing a public health work based on scientific results. Implying that they must investigate how Nynäshamn municipality managed to introduce a new way of looking upon children's outdoor environments and how concrete investments have contributed to the goal achievements in this project.

Implementation

During 2011, the work focused for example on inaugurating the project in the daily regular work. This means that the ideas behind the SPRING project (that

is, that shades, big areas and hilly grounds automatically provide physically active children) will in some way continue to prosper in the future. Three directions have been defined; via safety inspection, database and education. The idea is that the awareness about the schoolgrounds' importance for children's and pupils' health will increase through these channels. Besides, this awareness will be put into practice through development of the schoolgrounds.

The ambition is also to diversify the view on the schoolgrounds for all the invloved people; that is, principals, administrative managers, preschool managers, teachers, preschool staff, property technicians and caretakers. With a widened view of the schoolground, it will also be considered a learning environment, a pedagogical resource that can be used to fulfill the achievement goals in the curriculum for the preschool (Lpfö 98) and to work with the main content of the school curriculum (Lgr 11). All this apply very much also for new constructions.

1. Safety inspections

How to run the outdoor environment's safety inspections have not yet been finalized. So far the outdoor environments have been checked by a consultant every third year. The consultant has followed the EU recommendations (EN 176-1177). Unfortunately the recommendations have in many cases been seen as laws and therefore some unnecessary actions have been taken. On the other hand, the inspection itself has been valuable as basis for investment when it comes to eliminate urgent risks in children's and pupils' outdoor environments. What is missing, and what needs to be added in an inspection, is a complement to the urgent risks. We call it development risks. This means that we see the schoolgrounds in a long-term and pedagogical perspective. The schoolgrounds must contain certain elements to be an adequate learning environment, an environment that stimulates physical activity and not more than enough sun exposure. Here the criteria for the SPRING project matter, but also things like biological diversity and access to laboratory materials. After a precedent case, one school and a preschool were forced to take actions to provide the children and pupils with shades during the summer season, see below. This might be of importance for the continuing work with the schoolgrounds in the municipality.

The work of making the safety inspection a tool to discover devlopment risks will continue during 2012. See appendix 5.

2. The database

By using a database, the people responsible for caretaking of the schoolgrounds might get a clear picture of the status and what needs to be done in the future. The database will be used for planning and budgeting. It will show what is urgent and what will become urgent if nothing is done well in advance. It will show when maintenance should be done to optimise the investments done on the schoolgrounds. The database will be a tool for avoiding that things are forgotten. The investment in a database will pay off by reducing the damaging of capital goods on the schoolgrounds. An example of maintenance that was forgotten is the old pollarded willows that died at Svandammskolan. They were not pruned on time and the top branches were cut off 25 years too late, and soon died thereafter.

When this document is written no database has been realised yet.

3. Education

To emphasise the schoolgrounds' importance for children's health and for the pedagogical work, education is necessary. The status of the outdoor environments must be raised to the same status as the indoor environments. It is especially important for new constructions where the outdoor environments previous-

ly were completely excluded from the budget in some construction projects.

Educational work has been done during the project. All staff at schools and preschools have had the opportunity to attend a lecture about the research (SCAMPER) that resulted in the SPRING project. All caretakers and property technicians have been offered two full days focusing on the schoolgrounds' importance for the children's health and how to develop the schoolgrounds with different methods. The purpose of these days was also to build bridges and open up for discussions and cooperation between the property technicians employed by Property and Service under the Department of Environment and Community Planning (MSF), the park workers employed by the City environment under MSF and the caretakers employed by the schools under the Department of Childcare and Education.

The Nature School has continuously informed the environment representatives, within the schools' and preschools' networks, about SPRING during the whole project. All the environment representatives have also been offered a two hours lecture about the schoolgrounds, focusing on history, health and research as well as good examples.

In 2012, the nature school will continue working for more education and bridge building for increased consensus and enabling of synergy effects concerning development and maintenance of the schoolgrounds. This will be done by educating the principals, preschool managers and administrative managers within the Department of Childcare and Education.

A precedent in line with SPRING

During 2011 the first verdict was taken that forced a school and a preschool in a Swedish municipality to take actions to protect their children and pupils from harmful solar radiation. A precedent decree (case M 4256-10) states that the regulations in the Environment Code (chapter 9, paragraph 9) are applicable on outdoor environments. The interpretation implies that spending time on a premises' outdoor environment should be safe enough and that the outdoor stay should not risk people's health. Before November 30, 2011, the school and the preschool were obliged to present to the Environment and Planning Board what they had done to:

- make sure that children at the preschool have possibilities to stay and play in the shades on the schoolground and during the summer season
- provide the sandbox on the preschool yard with a permanent sun shelter (not a temporary one, such as canvas or parasol)
- make sure that pupils in the school's leisure time centre have the possibility to spend their time in shades during the summer season

Research by Karolinska Institutet

The survey

To elicit evidence on the effect of the outdoor environments by scientific methods, more than 100 surveys were in May 2008 sent out to relevant staff in the selcted schools and preschools. The same survey was sent out again three years later to see if the staff's view on the outdoor environment had changed during the project.

Cecilia Boldemann's conclusions: In general the outdoor environment is regarded improved compared to three years ago, More trees, bushes and shades may have resulted in using the schoolground more pedagogical and that relaxing, running, as well as imaginative and explorative games have increased. It is however unclear if the outdoor environments are used more. Outdoor stay continues to be valued having a very positive effect on the children. A significant or almost significant increase could also be seen in boys'and girls' play in dense vegetation, play with just soil and sand and water, symbolic games (girls), and somewhat creative games for both boys and girls.

Some negative trends can be seen which should

not be related to the outdoor environment but would rather have been worse if no improvement of the outdoor environment had been done. The changes can probably be referred to a bigger work load for the staff because of bigger children groups.

See appendix 1 for more information.

The process

A scientific article is in progress about the process and how the implementation of this public health work succeeded. Karolinska Institutet is responsible for that article. Read more under ”Lessons from the process and the result”.

Sky view

Sky view effect is a method of checking how much UV-light that reaches the schoolground and the children who are there. The measurement of the sky view is done using a camera with a fish eye lens; that is, a lens that can take photos in 180 degrees angle, which is an extreme wide angle providing a round picture.
Starting on the most popular play areas, the sky is photographed. The photos are then analysed by judging the size of the photo that is open sky and the size that is covered by for example trees and bushes. The idea of using this as a key figure in this project was good but not quite useful. The method is good for inventory to check a schoolground where children spend their time.

But to see a difference in results after three years is not possible when it comes to planting trees and bushes. They simply do not grow as much as they can obscure the sky. We realised this problem of getting a useful result quite early, so we abandoned the idea of measuring the open sky view. In those cases where land has been incorporated, the proportion of free sky view should however reduce percentage-wise, provided the incorporated land becomes one of the children’s favourite places and that they spend a lot of time there.
This should be possible to test scientifically also after the project since the incorporated land is new to the children and the old part of the schoolground is almost unchanged, seen from a sky view perspective.

Goal achievement

The goals and comments about achievements.

GOAL 1. That, in the outdoor environments around the schools and preschools in Nynäshamn municipality, there is access to vegetation, hilly ground, play installations integrated with the nature and that they are free from fences that segment the schoolground.

With the SPRING project, outdoor environments with access to vegetation and hilly ground have increased. Most of all this has been done through annexation, incorporation, of neighbouring land. It has been done on four of the six preschools and one of the four schools that participated in the project. In Segersäng it was even possible to integrate play equipment with the nature since Segersäng preschool was a new construction.

When it comes to fences that segment the schoolground the goal has not been fulfilled since there are still fences that segment the yards. One of the reasons for this is that the staff at some occasions must move the children to one part of the yard, mainly during the afternoon when there is fewer children and staff. Another reason that fences still divide the yard is the staff’s habitual patterns of working and moving. At some preschools the fence is an extension of the walls that divide the departments indoors. This means that cooperation between staff from different units does sometime not exist outdoors. An open schoolgound without fences between the units requires the staff to cooperate and take responsibility for each other’s children. In some cases the staff’s stationary way of working outdoors may also prevent the children from moving over bigger areas.

An open schoolground requires staff to be active and moving all over the yard. Segmenting fences may also be a sign of the staff's response to parents'worries that something would happen to their children if they move around too freely, especially in the outer areas of a yard.

The nature school is planning a training during 2012 or 2013 to raise the role of the staff since a new active way to move around on the schoolground will also benefit the work of achieving the goals in Lpfö98.

GOAL 2. That the free sky view will not exceed 50% from the places where the children spend most of the time playing.

The problem of measuring the free sky view can be read under "The research by Karolinska Institutet". Since land has been incorporated to five of the ten schoolgrounds the proportion of shaded land has increased. What should be investigated is if that is the place where the children spend their time or if they still play on the old part of the yard. How much the children will be exposed to the sun will also depend on where the staff is. Is the staff standing in the sun or are they moving around in the shaded places?

GOAL 3. That the children spend time outdoors for free play and organised outdoor pedagogical work.

The survey shows that this is done. There is a long tradition within preschools to spend time outdoors part of the day. It is not as natural for schools to be outdoors; the lower grades spend time outdoors but that habit decreases gradually as the age of the children increases. For pupils in higher grades the outdoor activities are often associated to sports lessons and activity days outdoors.

Usually this goal is something that Nynäshamn Nature School is always working towards and recurrently offers courses about. During the project, all teachers in the schools in Nynäshamn municipality were offered a two-hour education in Outdoor Swedish and all the preschools were offered 2,5 hours education in Outdoor Mathematics. All courses were done on respective school's or preschool's schoolground.

It is especially interesting to follow the development in Svandammsskolan's green classroom "Grönan" which is only to be used during lessons and not during the breaks. If we cannot make any conlusions about achievement within the frame of this project, we can at least be sure that the conditions to reach the goal has been improved for the future.

GOAL 4. That the aspects that SPRING is built upon will be considered for new constructions and maintenance of the yards of schools and preschools.

The project will, in long-term, be integrated in the regular muncipality work. The SPRING criteria will be considered in the planning cooperation between the municipal departments. While running the project, examples that the SPRING ideas are established have been shown, such as putting up a fence a bit up in the woods when rebuilding a school to a preschool, instead of building the fence on the border of what seemed to be the yard - this on the Property unit's initiative.

The skills of the nature school were also requested during planning of new schools and preschools. This request shows that SPRING is considered for new constructions. The idea of the implementation is however to spread the competence to people working with ordering and planning of building constructions. Another example of SPRING being considered is when a preschool wanted a fence to avoid one child's rampaging. The Property unit objected this and referred to the SPRING intentions; that is, not to divide the schoolgrounds with fences. The preschool manager at that time also took a big responsibility when the staff disagreed and the involved parents were upset. The final result was to put up a number of flower boxes on the paved walkway. This contributed to slower speed by forcing the children to crisscross them.

When Segersäng preschool was built it became a pilot study for the SPRING project and the SPRING criteria were measured during the construction of the building and outdoor environment. The building was turned 180° on the drawing stage and a big part of the forest was incorporated into the yard. The preschool was ready in January 2008.

Success factors

- The annexation of land has been done on four of the nine schools and preschools that were part of the project. In addition, land was incorporated to Segersäng preschool already during the planning stage. Without doubt, this action has been the one fulfilling most of the goals to the least economical cost. It provided both bigger and more hilly areas for children and pupils. It provided vegetation with immediate result of larger shaded areas and more opportunities for increased physical activity compared to new plantations of trees. It provided more pedagogical activity outdoors. The reason for this success on the four different schoolgrounds is that there were municipal-owned land in connection to the yard and that people involved in the project have also worked with property boundaries and planning.Therefore the annexations were made possible without much obstructions. In one case though, one preschool declined annexation because the neighbouring land was to steep.

- The project has led to increased awareness about the outdoor environment's importance to children's and pupils' health. This thanks to the cooperation with Karolinska Institutet which contributed with the scientific knowledge base that the project is based upon. Cecilia Boldemann's lecturing tour in the beginning of the project gave a very good introduction and understanding of the project. Concerning Segersäng, her presentation of the results from the SCAMPER study was crucial for changing the drawing where the building was turned 180 degrees. That the Property manager at that time was positive to the project was also of decisive importance, to be able to implement the project.

- Segersäng preschool became a good example just in the beginning of the project, which gave good energy and inspired all the involved people.

- That the steering group consisted of representatives from several departments was totally crucial for the project's success. All the decisions about actions and sharing the costs were made within the steering group, meaning that the decisions automatically got a broad support and that the actions were implemented immediately without waiting for any further decisions. The project leader represented the Department of Childcare and Education and has, in this group, protected the interests of the school and preschool staff, who in turn protected the interests of the children and pupils.

- The project got a good start where several engaged and enthusiastic actors were involved: The development manager for public health issues, the coordinator for equality in health and the project leader - initially they all had crucial roles.

Lessons made from the process and the result

- Some contact people feel disappointed that it didn't turn out the way they had expected. Their expectations were probably too high.

The expectations were probably built up by all the drawings made by the landscape architect. Here the project leader should have been more precise and informed that the drawing was just work material and a desired scenario on how to develop the yard. The drawings were made from a holistic approach and free creativity with no budget control. They have been done based on what is reasonable to do on a yard but should at the same time be seen as working material for the future. Those who are disappointed have not been involved in the project budget or not seen the gap between the cost of the drawing's actions and the

budget. It may also depend on cost ignorance of various actions. In turn, the staff's lacking knowledge of the cost depends on the project leader who did not inform about it. On the other hand, the project leader did not have full knowledge about the cost in the beginning of the project. That knowledge has grown during the progress of the project.

Disappointment partly also derives from communication problems between users and managers. Those who work in schools and preschools do not always understand the property staff and the park workers' work situation or methods, and the property techinicans and park workers do not always understand the teachers, the child care takers, the needs of the children or the pupils and they do not always understand the methods of the pedagogical work.This is one of the reasons why the nature school wishes to create a forum for mind exchange about outdoor environments between different occupation groups.

- The project leader should have sent out a newsletter regularly, for example four times a year. Then the property technicians, the teachers and other professions would have got information that they now may have missed. A lot of information was presented on the home page but it is not that natural to check there on a regular basis. Some confusion in the beginning about the project's purpose partly depended on some contact people's incapacity of giving information. A newsletter directed both towards staff and parents would probably have remedied that problem.

- The project leader should have been more clear about the priority order within the project. All the schools and preschools should have been made aware of the complete three-years planning, for example that Vanstaskolan was not planned for until 2010.

- Communication is the foundation for a successful project. All parties could have done better. Since the project has been implemented in parallel with regular work, it is likely that lack of time is the reason to most of the communication failures.

- Slowness has characterised the project. Everything has taken time and the project leader had to remind the actors continuously. This partly depends on the democratic process, which by nature is slow. For example, it took about half a year to receive suggestions from schools and preschools. The slowness probably also depends on the work load of the people who were implementing the actions, such as the Park unit. Another reason could be that the Property and Service department is a new organisation and is "tidying up" many years of maintenance deterioration when the responsibility was owned by the principals and preschool managers. Beacuse of priority reasons, they did not invest in the schoolgrounds during that time.

In one case the project leader took over the contact between a principal and a parent where the parent was supposed to do voluntary work. The work was delayed: one year to get everything done. This is one example of when one action takes too long time.

- That the funds came from the Executive Committe was good since the project is an overall municipal concern and not only of interest to the Department of Childcare and Education, wherein schools and preschools are organised. Negative was that the project leader did not have control of the economy. The development manager of the public health work at KSF had the financial responsibility, which was convenient. But when she left nobody seems to have had any control how the economical situation looked retrospectively. It was not until the fourth year that the money became the responsibility of the project leader; that is, the nature school. However, the money for 2011 was not transferred until October, and it is unclear why it took so long.

- With the overall municipal steering group, the project has been of broader concern than if it consisted only of representatives from the Department of Childcare and Education. The information should however have been forwarded by every steering group member informing its respective council during the project progress. The steering group should also once a year have travelled around to the different locations and discussed with the participating schools and preschools.

- Initially the steering group was big, but after the first year only representatives from the nature school (BUF), the Park unit and Department of Property and Service attended regularly. So, only four people attended most meetings even though the whole group was called to all meetings. This development was partly natural since the content of the meetings changed from being general to more details about the design of the yards. Further efforts to gather the whole group would have spread the information about the project's progress more.

- On the locations where the areas are big, such as Kyrkskolan, the plantations should have been limited to smaller areas instead of spreading the vegetation that much. Then the actions would have been more obvious and had provided a more sense of room and more shades for the pupils.

APPENDIX 1

Karolinska institutet's survey

Introduction

The SPRING project is an offspring of the *Equality in health* project that Nynäshamn municipality runs in cooperation with Stockholm county council. The SPRING project started in 2007. The outdoor environment was the focus of the project.

Outdoor environments that fulfill certain criteria (area of at least 3000m2, with between half and two thirds hilly ground covered with trees and bushes, vegetation that the children use in their play, and an open sky view of less than 50% seen from the positions where the children play most) have several health beneficial functions: the children's physical activity increases, the do not get more than enough sunshine even when spending long time outdoors, they sleep better during the nights and get slimmer waists. Also their concentration abilities get better and thus the learning ability.

The purpose of the SPRING project was both to upgrade preschool environments so that they fulfilled the health supporting criteria and to integrate routines of such upgrade in the municipality's continuous work (such as safety inspections, etc.). Six preschools participated in the project: Vika, Humlan, Vaktberget, Skogsnibble, Viksängen and Fagervik. A survey was distributed to the staff at the 6 preschools, in 2008. The staff evaluated the outdoor environment, the type of children games, and their own work situation. After three years and when actions for changes had been taken, the staff was asked to evaluate the outdoor environment again using the same survey.

Method

The survey consisted of 49 questions that were identical both years except one question was added in the 2011 year survey asking whether the respondent had answered the same survey three years ago. Eight questions were about the staff's work situation, five about policy issues, and the rest about evaluations of the children's play and their play environment. Both times the survey was distributed during the early summer.

Everyone handed in the survey in 2008, and 4 for both 2008 and 2011 (Vika, Humlan, Vaktberget, Skogsnibble). However, for 2011 many fewer responses were handed in; that is, 40 responses in 2008 and 16 responses in 2011 (table 1).

Table 1. Distribution of respondents in 2008 and 2011.

	Vika	Humlan	Vaktberget	Skogsnibble
2008	7	9	10	14
2011	3	2	6	5

Among the respondents there were only one male and one person that had not declared sex. Both worked in Viksängen. At the 4 preschools where follow-up data were submitted, all the respondents were females.

Result

How to improve the outdoor environment?

The dominating suggestions in 2008 on the question how to improve the outdoor environment were to provide more shades, more trees and more vegetation. These kind of suggestions were few in 2011, but instead there were opinions about the increased number of children on the schoolground. Also the question what prevents using the yard for a pedagogical purpose, the dominating response in 2008 was the lack of trees, bushes and vegetation, but in 2011 the reason given was rather lack of space and existing fences. The question whether there was neighboring available forest/natural grounds, the dominating responses were "no" in 2008 and "yes" in 2011.

In 2008, 14 respondents handed in remarks under "Other comments" about the outdoor environment, of which 12 were about too much sunshine/too little shadow, too hot, gritty, rocky and dusty. Two called for more explorative environments and one wanted garden areas. Nobody made any such remarks during 2011.

How was the outdoor environment evaluated?

For the overall evaluation of the outdoor environment, half of the staff (21 of 39) considered the outdoor environment quite bad in 2008. In 2011 only a third thought that (6 of 16). The number was too small to be significant.

Significantly more, i.e. outside the statistical error margin ($p<0.05$), answered that the environment concering greenery and vegetation, as well as climate (sun, wind, etc.), had improved in 2011, in spite of the brief material. Also a small tendency of improved play environment could be seen especially concerning relaxing, fantasy play, running and explorative play, but the material is too brief to be able to say that the change was significant.

The staff was asked to evaluate the outdoor environment using adjectives, which had been tested on its validity in a previous study, i.e. the evaluation's reliability as indicator for the environment's characteristics. The adjectives that were evaluated as promoting physical activity were significantly more often reported in 2011 than in 2008. On the other hand there was no difference between the years of the reported adjectives that were evaluated as reducing physical activity.

How was the children's play evaluated?

More respondents specified difficulties for children's free play in 2011. The dominating reason was that it was too tight and too many children, and in one case a fence blocked the way. Why more people specified difficulties during the latter survey can also be seen as more awareness by the staff. More than two thirds of all the respondents stated that they worked on their preschools already when the SPRING project started. On the other hand, considerably more stated in 2008 that the yard was not used for pedagogical purpose. Only a few people stated that in 2011.

The question of which elements the children use in their play in the forest and in the natural fields, a considerable increase could be seen for play in dense vegetation, play with open soil and sand and water, as well as a vague non-significative increase of creative play, both for boys and girls.

For both years the preschool staff reported only positive effects of the children's outdoor stay. There were however signs that the preschools considered themselves being outdoors less than others and that planned outdoor stay sometimes did not occur (extreme weather conditions was the reason reported by five, sickness by one, and another one reported that security could not be guaranteed), and that the staff was disturbed more of high noises (this was not a signifiative increase). On the contrary, considerably more reported that they were lacking time to do their work tasks. This could possibly be a sign of additional children attending the preschool whilst the number of staff had not increased.

Limitations

The results must be interpreted with much caution. About the questions regarding the staff and their work situation, no conclusions can be made. No preschool indicated that the respondent had been the same person for both 2008 and 2011, except Vaktberget where 4 people (2 childcare takers and 2 preschool teachers) reported that they had also made the survey in 2008. Altogether it is therefore hard to make an evaluation of the staff's experienced improvements of the outdoor environment, based on these data.

Mistakes or misunderstandings while answering the survey cannot be excluded. For example, one preschool teacher at Vaktberget checked both attributes "spacious" and "small" when describing the environment. The weather may also have affected the judgement on the preschools' outdoor environment. The respondent should therefore maybe have had the opportunity to indicate the weather conditions at the time when the survey was made. Another aspect to consider is that the staff – whether they answered the survey for the first time or not – has lived with the SPRING project for three years, which would have had an effect on their responses.

Conclusions

Overall, the outdoor environment is evaluated being better today than three years ago. More trees, bushes and shades may have resulted in using the yard more pedagogically and that resting, running, fantasy play and explorative play have increased. Also the availability to neighbouring natural areas seems to have increased. It is however unclear if it the area is used more. Outdoor stay continues being considered positive for the children. A remarkable or almost remarkable increase could also be seen in the children's play in dense vegetation, play in open soil and sand and water, symbolic play (girls) and somewhat creative play for both boys and girls.

Some negative trends can be seen, which should however not be related to the outdoor environment but rather would have been worse if improvments had not been done in the outdoor environment. The changes can probably be referred to a higher work load for the staff because of bigger children groups.

APPENDIX 2

Contacts' evalution of the SPRING project

Interviews March-May 2012 with contacts on the schools and preschools that participated in SPRING

Respondents 1-5 work at preschools and respondents 6-8 work at schools. Vanstaskolan has not responded since they are included in a springoff-project that were not completed when the interviews were made.

What do you think about the SPRING project?

1. Enjoyed it a lot! A chance to remake the yard. I like the values that SPRING stands for. Wonderful.
2. Good, but we think we were not able to finalise.
3. Good from a health perspective.
4. Good from the beginning but resulted in blah blah. The whole idea was brilliant. Unfortunately the different profession groups do not understand each other's work.
5. Both good and bad. It did not turn out the way we thought.
6. Very good. People started to reflect; what does the environment on our school ground actually look like?
7. Good that these questions have been raised and we get help from the outside to do something good to the schoolground.
8. It has been good and fun with a project where the actions are obvious and visible.

Which actions have been most successful?

1. NATURALLY THE FENCE that incorporated the new part of the yard. And the staircase - what a great job the students at Gymnasiet's construction course did.
2. The lilac hedge and the playhouse boat.
3. The new area that provided more playgrounds and the sandbox that was moved to the forest.
4. The new incorporated area.
5. The hill.
6. The staircase and the plantation of trees in the middle of the yard.
7. The addition of "Grönan" as well as the construction of a grandstand/stairs and the "bridge" at Svanis.
8. The planning and the things that has been built.

Which actions have been most unsuccessful?

1. No actions failed. we only wished that the money wold have been enough also for a pergola.
2. The bench around the tree was too high, the children cannot climb up on it. The canvas for the sun shield was too small, they must have made a mistake when sending that one.
3. No actions, but the information has been insufficient, as if the project was stopped.
4. The green room that was supposed to be built on the gravelyard. Only a tree is planted there, and the children are never there. If they are, they only stand there and throw stones on cars passing by. The soil that was supposed to cover the roots of the existing trees was not put there. Instead the place is now filled with sand. And we already have so much sand.
5. Seems a bit paltry with plants.
6. The bush plantations take such a long time to grow, but longterm it will be good.
7. We were informed there was a gazebo available for us. We had not even discussed that and we did not want one (we already have two). The gazebo was given to Gröndal. Neither had we ordered the snake, but one day it was there. That one is good, only had it been placed on the small schoolground where the pupils learn how to count to 20.
8. We desired more actions, but it is an economical issue. Many good ideas were not implemented.

How much do you think that the newly incorporated area is used by the children?

1. There are always children there. Even 2-years children are at the far end of the area. Some children call it the "little forest". It really feels like part of the schoolground.
2. No incorporation has been done.
3. From the beginning the children and the staff didn't feel comfortable in the new area. Now that we are there more often we see the possibilities. For example, we have built a troll's hut.
4. The youngest children have fixed times when they are in the "small forest", which is several times a week. Also the older children spend time there, for example when they're having their snacks. We're discussing about developing the new area. We need more loose material so that the vegetation is not damaged too much.
5. No incorporation has been done.
6. No incorporation has been done.
7. Relatively much, we only use "Grönan" for organised activities and lately it has been very muddy.When it gets dry, we will use it again.
8. No incorporation has been done.

Do you think that you've got more shades and more physical activity now after the SPRING project?

1. Definitely more physical activity. We haven't got more shades on the existing yard which is most lit by the sun. On the other hand the play has partly been moved to the new area where there is shadow.

2. Marginal shades by the sunshield. Both shades and physical activity in the playhouse. The children climb and run around. The lilac bushes do not yet provide shade or physical activity until a couple of years.
3. Yes. The children run and jump in the new staircase. The new area provides shades and so does the sunshield over the sandbox.
4. Yes, through the new area, the ”small forest”.
5. Not yet since the bushes and the trees still are so small. The slide and the hill have provided a lot of activity though.
6. It is too early to say, but longterm it will provide shades, especially the trees in the middle of the yard. The staircase provides physical activity for younger children when they play, run and jump. The older ones just sit and hang around.
7. More physical activity, yes. That the trees by the railway were cut, died and have not been replanted, is a shame. Good that some new tree has started growing, but it is still too little shades during summertime.
8. Shades, no it takes some time before the trees grow big. But there is a feeling of comfort and space. Physical activity, yes where things have been built, which have provided physical activity, as well as different activity.

Do you use the schoolground more for pedagogical purposes now after the SPRING project?
1. The organised pedagogical work has not increased. As a teacher you always discuss with the children and now the space to hold conversations have increased.
2. We are outdoors more now, but not thanks to SPRING. It is rather because the children’s group is noisy and must get outdoors to move and run around. We would be outdoors more if there were lighting installations during the winter season.
3. Yes, with the new forest area. The children can now be outdoors to do carpentry, instead of indoors.
4. We are discussing but the staff does not dare to remove the fence of the new area.
5. Don’t know. The children start more plays by themselves, especially thanks to the hill.
6. No, no difference. The teachers must risk more. We have some pupils that need to move more, which is better outdoors where they can climb in trees instead of bookshelves.
7. Yes definitely.
8. We can use what has been built on the schoolground in our pedagogical work. I think it contributes to be used more and differently.

Other things that were apparent during the interviews
1. An extra fence on a hill has provided more physical activity since we can now let the children be on the hill, around the fence and down on the other side without risk of falling down. Before they were not allowed to go up there. The staircase has provided bigger area and increased physical activity when it replaced a sloping plantation with Aronia bushes. The children use the stairs to run or climb on. They make sand cookies or they eat their snacks there. We have removed the problem of the Aronia berries that destroyed the children’s clothes, which irritated the parents.
2. Weak timber as protective barriers and a handrail to the playhouse. We need more solid constructions since the children climb a lot.
3. We have become more aware about the negative effects of the sun. We would like one more similar sun protection. The lighting is too bad during the winter season, which makes us stay indoors more.
4. The landscape architect taught us to see with new eyes. But she didn’t have knowledge about the wear and tear by 60 children on a school ground. The yard is a pedagogical resource for us. It’s a pity that we didn’t have a spokesperson in the project. The Property and Park blamed everything on Mats all the time. The implementation of the actions should have been done in a context where the whole drawing was considered in the calculations. For example, to develop a ”green room”, a leafy area on a small gravelyard - then it is not enough to plant one tree. They could as well have ignored that and invested in another area of the yard instead.
5. The municipality should buy more land due to a new unit.
6. Weak fences (protective barriers), they break. During snow removal, snow piles were put on top of new plantations. Snow piles were put at the new trees between the stairs, and then the children played in the snow piles which resulted in some damaging of the trees.

APPENDIX 3

The steering group's evaluation of the SPRING project and the project leader

How do you think the SPRING project worked?

- It seems to have worked well, according to the evaluation, even though the response rate of the follow-up survey was not as high.
- I view the project as positive.
- I think it has been a long but fun and educative journey, with many exciting tasks to implement.
- The purpose very good and also having research as support for the project. Good that involved people were informed about the research in the beginning.

What was most successful in the project?

- That some structural changes have worked, that concerned departments seem to have adapted, "assimilated", the new knowledge.
- A success factor in the project was the overall departmental support on different levels in the municipality. A conclusion usually made after a public health project is that it is the lack of support; that is, important functions, in for example a municipality, were involved too late or not involved at all, that it was run from the top and not based on previous experience or that it was based on earlier experience but with no mandate to implement, etc. What I experienced so special with SPRING was the creation of a well established project running over several departments and on different levels, through many meetings, with help from key persons, inspiring lecture and engagement from the key persons at the different departments, and not the least through the project managers. It was built on previous experience and did make use of the engagement that the staff, the parents and the children had.
- That the project has provided the schoolgrounds with a greener framing.
- The cooperative work within the municipality, for example when the Construction course in Gymnasiet helped by building according to the schools' and preschools' requests. That trees have been planted, that vegetation is planned for in a project.

What was most unsuccessful in the project?

- Difficult to judge, maybe the possibility to influence the policies in the preschools, there is however not enough time to be able to manage everything.
- Something I think could have improved was to include not only "pure" health aspects when designing the environments but also to raise the children's perspective as an important starting point, as well as putting it in relation to the regular work on the preschools.
- Participation of the pupils' families who promised to help but they didn't manage when they said they would.
- Some schools' or preschools' disappointment that their wishlists could not be fulfilled 100 %. They have an overconfidence of what is possible to achieve since they don't have insight in the budget. Nor do they seem to understand the competence of the decisionmakers.

What did the project leader (Nynäshamn Nature School) fail doing for the project?

- Cannot judge that.
- -
- Cannot think of anything that has been bad work by the project leader.
- The project leader should have been more clear towards the staff at the schools and preschools about the overall picture and the budget, which would have increased their understanding. The project leader should have been more clear from the beginning about the different roles the people in the project group were having. It is good to know if you're involved just to get informed or because you actually are part of implementing the actions.

What did the project leader (Nynäshamn Nature School) succeed doing for the project?

- It seems to have had a very good overview of the project and fantastic logistics.
- -
- That two enthusiasts have put so much time and work in the project and have carried it on and finalised it.
- The project leader has had long-term planning and structure in their work. A reasonable number of meetings that were announced in advance. The content of the meetings were enriching. That people from Karolinska were asked to join some meetings was great inspiration and reminder why we were doing the project. It was good that the project leader pushed forward, reminded and asked how we proceeded. Good that the project leader took **minutes of all the meetings**.

Other comments you wish to add

- It would be good if the staff in schools and preschools protected their environment more and not just let the responsibility over to the property owner.

APPENDIX 4

Requirements for participation in the SPRING project

General
• That the preschool or school follows the SPRING intentions.
• That a work group/schoolground group is established if there is none already.

2008
• That all preschool staff and the staff for grade 1-6 answer a survey questioning their opinions about the outdoor environment around the preschool/school. This to get a picture about the situation before the project gets started.
• That time is reserved for 1-2 staff to participate a couple of hours during inventory of the preschool's/school's outdoor environment and development of action propositions.
• That time is reserved during staff meeting for education and discussion about the preschool's/school's outdoor environment, its design and importance for the children's health.
• That time is reserved during parent's meeting for education and discussion about the preschool's/school's outdoor environment, its design and impotance for the children's health. Alternatively extra parent's meetings for this purpose.

2009
• That time is reserved for education in outdoor education for concerned staff at preschool/school.
• That time is reserved for concrete work on the schoolground together with parents and the Park unit.

2010
• That all preschool staff and staff for grade 1-6 answer a survey questioning their opinions about the outdoor environment around the preschool/school after implemented actions. This to get a picture about the situation after project implementation.
• That time is reserved for concrete work on the yard together with parents and the Park unit.

Documentation
• That time is reserved a couple occasions during the term for the staff to document the children's time spent outdoors (duration outdoors, the places where they play/favourite places, play sequences, etc., after receiving the minutes of the meetings). This should be done continuously during the project period 2008-2010.
• That time is reserved to document the work on the schoolground with photos and text.

Voluntary commitments
• Being prepared to receive study visits.
• To plan time to visit other preschools
• To plan time for education in PowerPoint to facilitate the documentation work. Education for free by the ICT-unit.

APPENDIX 5

Brief about Kidscape

Kidscape is an international research project based on a previous study (SCAMPER) where a new environmental evaluation tool (developed by Fredrika Mårtensson, SLU Alnarp) was used to study how the preschools' outdoor environments affected the children's physical activity, sun exposure and concentration ability, and how these three variables were affected in relation to each other due to the environment. In Kidscape, this tool was further developed by:

1. being tested on preschools at different latitudes, in different topographies and different cultural environments. Based on the results the tool is developed to become reliable on all places on earth (that is, places inhabited by people!)

2. the tool's applicability and usability is tested in a municipality (SPRING) through studying the process of its establishment and use.

The following universities, institutions and organisations cooperate until today in Kidscape: Karolinska Institutet, Swedish University of Agricultural Sciences in Alnarp, Lund University, Linnaeus University in Kalmar, North Carolina State University, USA, Arizona State University, USA, Stockholm County Council and Nynäshamn municipality. The Swedish part of the project received research funds from Formas (The Swedish Research Council for environment, agriculture and society).

Actions on the schoolgrounds

The actions can roughly be divided into three groups: annexation of land, plantations and constructions. Common for all of them is to provide more shades and increased physical activity to a reasonable cost.

Annexation of land

Incorporation of land neighbouring the yard has been possible in those cases where land was available and the owner was Nynäshamn municipality. No purchases of land has been made. Annexation was done to four preshools and one school by putting up new fences outside the existing ones.

Plantations

In those cases where land was not possible to incorporate; that is, in most cases, then plantations was most important for increasing the areas with shades. Note that this action automatically also provides physical activity, which is shown in the SCAMPER study. Plantations should be seen as long-term actions since the size of trees and bushes determine how much shadow they provide. On the other hand, the economical frames determine the size of the trees and bushes to be purchased. Selection of trees and bushes were based on the landscape architect's proposition in the cases where a consultant was hired. In cases where no consultant was involved, it was the school's or preschool's own desires that decisions were based upon, in combination with the knowledge within the Park unit. Plantations were made on eight of ten locations to different extent. The most comprehensive plantations were made on Kyrkskolan, Vika school and Fagervik preschool. Common for these is that there were large areas which partly had no vegetation at all. Protective barriers prevents the children from running onto or climb in the vegetation area during the establishment phase, which means several years of protection.

Constructions

Common for all constructions within the project was cost efficiency and simple equipment level. Therefore the students at Gymnasiet's Construction course were hired several times. At the same time as keeping the costs down, the students get opportunity to do very concrete and reality-based assignments which provide immediate effect on their working environment. Children and pupils also got the opportunity to follow their work, which is a social and pedagogical gain per se.

Concerning Vanstaskolan, student summer workers helped working with the "activity park". The Property and Service unit employed three supervisors for the work at schools and preschools in the whole of Nynäshamn municipality. One of the supervisors worked full time for ten weeks with Ösmo - the part of the municipality where Vanstaskolan is located. During nine of the weeks the supervisor was responsible for the summer workers in three-weeks time periods. Ten student summer workers worked each period; that is, 30 workers in total. Also the summer workers were employed by Property and Service. The material to the activity park was characterised by simplicity and almost everything was for free: logs of pinetree and oak, rocks, worn-out ropes, old tires, a small part of a railway, bicycle stand made of concrete and concrete bricks. Even if the material is for free, there are additional costs for transports, however almost all material was transported within Nynäshamn municipality. More about the activity park can be found at

Contents, photo documentation

Vaktberget preschool

Vårfruvägen 22-24
149 41 NYNÄSHAMN

Description of the playground before SPRING

Vaktberget preschool in Nynäshamn was built in 1988. The preschool has three units with a total of 60 children. It is located in a residential area and below a parking lot of a conference center. A walkway from the road below the yard and up to the conference center is located on the eastern and northern side of the yard. The walkway is an easement. A sloping lawn on the southern side of the yard is partly not available to the children due to a fence. The yard's north-eastern corner consists of a steep hill that was often used by the children, especially when there were ropes that they could use to climb up. Due to the new EU recommendations, the ropes were removed with the consequence of mossen growing on the hill. Therefore the staff do not dare the children to play there anymore because the risk of slipping. In the middle of the yard facing south towards the preschool building, it is very hot during sunny days from May to September.

With an increased number of children the staff has for many years been working on improving the playground.

More documents about Vaktberget preschool and what has been done in the SPRING project can be found at
www.nynashamnsnaturskola.se/spring

Vaktberget preschool in Nynäshamn. A preschool that for many years have been struggling with its playground.

= The boundary of the yard before the SPRING project.

= Incorporated land included in the yard after the SPRING project.

Northern side

The grass slope on the north side has now been made available to the children through a new and better fence towards the road below. The old fence stopped the children already at the corner of the building.

The reception of goods and the garbage bins are located outside the gate on the northern side. When the garbage truck arrives the children must be fast to be there and check what they do.

Southern side

There is a sandbox on the southern side. Beside the sandbox is a slope that used to consist of old bushes not functioning either as play environment nor as shading environment. Instead there is now a staircase with several functions. Two trees have been planted on the stairs to provide shadow. The stairs also provides for both activity and relaxation, but can also be used as grandstand for parents or for the children to stand and sing.

The trees on the stairs provide both shadow and inspire activity. In the background you can also see the Alfons-hut that was built in an earlier project.

Pallet collars as plantation boxes on the very hot southern part of the yard.

The new incorporated area

There is a walkway outside the yard. By the walkway is a slope with a forest and at the end a concrete wall. The concrete wall is built for stability purpose to the parking lot above. Thanks to the project, the area between the wall and the former yard is now incorporated. This also means that the walkway now lies inside the fence of the preschool yard. For the public to be able to use the walkway, the gate must be kept open on evenings and weekends. The walkway is not used much since there is another road to the conference center. Before the decision to incorporate this part, the usage of the walkway was studied, by counting the number of people passing by certain hours during the day.

Between the wall and the vegetation, small trails are now evolving where the children can get speed. The area provides for cooling shades during the most sunny hours in the day and provides for the possibility to sit down for reflection. The area inhabits other trees and bushes from those on the former yard - the biological diversity has increased on the yard now.

The area of hilly ground has increased and stimulates activity and training of motor skills. The possibility to get hold of natural materials, such as sticks, has incresed remarkably thanks to the new area. The children can come into the new grove by crossing the walkway which is now located inside the fence. The old wooden fence can be seen on the right side of the walkway.

Eastern side

The eastern side of the yard is neighbouring a residential garden. Nothing has been done here during this project.

A high hill is located in the south western corner. Above is shown the fence that will stop the children from climbing the hill. Below is shown the eastern part of the yard.

The yard's whole southern part can be seen from the hill . The incorporated walkway can be noticed below, behind the trees, as well as the playhouse and the vegetation in the upper right corner of the photo that nowadays belong to the yard.

Humlan preschool

Fröjas väg 47
149 33 NYNÄSHAMN

Description of the playground before SPRING

Humlan preschool in Nynäshamn was built in1967 and expanded in 1969. The preschool has three units with a total of 60 children. The preschool is neighbouring an F-3 school. On the eastern side there is a walkway and a parking lot and on the western side an apartment building. The yard is only situated on the eastern and southern sides of the preschool building and there is no possibility to get around the building. The staff has worked many years to improve the environment on the yard.

More documents about Humlan preschool and what has been done in the SPRING project can be found at www.nynashamnsnaturskola.se/spring
For example, Anna Lenninger's program proposal for renovation of the yard is available here.

Humlan preschool in Nynäshamn.

= The boundary of the yard before the SPRING project.

= Incorporated land included in the yard after the SPRING project.

Eastern side

In the north eastern part of the yard a tree has been planted in the middle of a sandy area, which function was unclear. In the corner of the sandy area, close to the new gate, bushes have been planted.

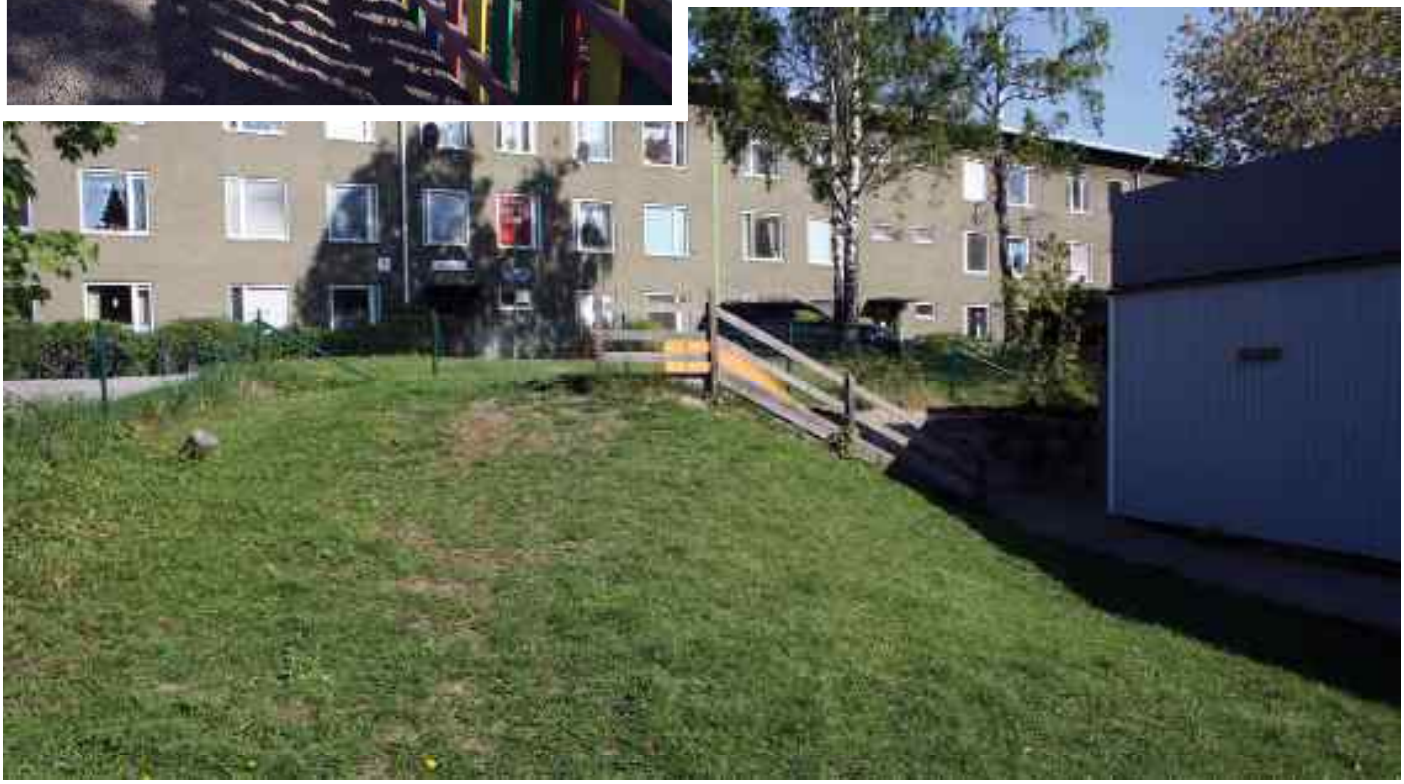
Bushes have also been planted on the other side of the gate, between the storage and the fence, as well as at the corner of the storage towards the yard. Protective barriers have been put up for all bush plantations to avoid the children stepping on the plants during the establishment phase.

The design of the preschool building makes the eastern side an inneryard with a sandbox in the middle. Wooden boards have been built around the sandbox, as well as a ”baking board” where the children can make their sand cookies. There were already a couple of taller trees here, providing good shades for the part of the inneryard next to the building.

Southern side

The southern side contains swings, plantation boxes, a lawn and a slope, as well as a slide. Nothing has been done here within the project.

The apartment building is owned by Nynäshamns-bostäder and they came to an agreement with Nynäshamns municipality to lend part of their land between the apartment building and the preschool.



Western side

The western side contained, before the project, of a narrow area between the building and the fence dividing the yard from Nynäshamnsbostäder's area. An extension has been built here for baby carriages and behind the extension there is a slope down towards the preschool. A big part of the grove close to the preschool was incorporated thanks to the project. Previously the fence ended at the corner of the building. Now there is a gate next to the house corner through which the children can go out to the new area.

Western side - the new area

The new area just inside the gate.

The new area stretches north towards the school neighbouring the preschool. The school can be seen in the background.

The area is hilly by a slope down towards the preschool, which is good since the rest of the yard is realtively flat. There are some smaller trees and brushwood but also some taller trees. The biological diversity has increased on the yard.

Skogsnibble preschool

Nyblevägen 25
148 30 ÖSMO

Description of the playground before SPRING

Skogsnibble preschool in Ösmo is one of the youngest preschools in the municipality. It was built in 2004 and consists of four units with about 75 children. The history of the playground is therefore young but contains some interesting events. In the planning phase the preschool manager at that time was very keen on creating a good playground. At the time of establishment, the Property and Service department did not yet exist. Instead it was the preschool manager being responsible for the outdoor environment. On the property where the preschool was planned to be built a meeting was held between the preschool manager, the project responsible for the construction in Nynäshamn municipality and the construction company's site manager, as well as Nynäshamn Nature School. Everybody agreed on this meeting that as many trees as possible would be saved to get as natural yard as possible and to avoid planting trees afterwards. Afterwards there was a lack in communication, nobody talked with the person cutting the trees. The result was only a tiny small birch tree left. It was protected by cement pipes but died later on. After that, plan B was implemented, after leverage by the preschool manager and Nynäshamn Nature School, to move out the yard boundaries so that part of the forest could be incorporated already during the construction phase.

More documents about Skogsnibble preschool and what has been done in the SPRING project can be found at www.nynashamnsnaturskola.se/spring

= The boundary of the yard before the SPRING project.

= Incorporated land included in the yard after the SPRING project.

Western side

The western side, the front of the preschool, is strongly sunlit and becomes very hot during the summer season. A play area and a sandbox for the youngest have been placed here. An urgent need for shades resulted in a sun canvas being put up on four poles as the Danish model. The biggest advantage of sun canvas compared to planting trees is that the children got shades immediately. The sun canvas can easily be taken down by the preschool staff every day when required.

Eastern side

The eastern side is characterised of a slope from the asphalt closest to the building up to a flat area that is limited in the east and north by a big ”loaf” functioning partly as noise protection against the traffic a bit away.

A sandbox, swings and a few playhouses have been placed on the flat area. There is also a willow hut and a willow grove that were planted earlier to get vegetation growing fast on the barren area. To provide shade to the sandbox, three trees have been planted during the SPRING project.

The tree curtain in south provide good shades during the hottest days. A slope created by filling materials is often problematic on school grounds since plantations do not easily grow there, especially when many children are moving around on a relatively small area. The preschool's solution here is a staircase with several functions besides getting up to the playhouse area. The children can climb, jump and sit on the stairs. They can stand and sing to their parents or let the parents sit there as on a theatre.

Southern side and the new area

In the initial planning phase of the yard, the fence was supposed to be built on the left hand side along the gravel trail in the middle of the picture. After pressure the fence was moved ten meters south. The children climb in one of the trees that, according to the original plan, would have been outside the yard. Now, after the SPRING project, another fence has been put up further into the forest and the yard area has thus been increased. The new area requires however that the staff move around differently on the yard. There is a gate to the new area that can be closed when needed.

The children can now spend time in a blueberry firtree forest which is quite rare for being a preschool yard. Next to the new area is a jogging trail and on the lower picture the municipality's sports field can be seen in the background.

Vika preschool

Bondängsvägen 26 A
148 60 Stora Vika

Description of the playground before SPRING

Vika preschool in Stora Vika is relatively new. It started in 2006 and consists of two units with about 35 children. The premises are a previous library that has been extended and the yard is an offspring of the neighbouring schoolground. The building is attached to the school and the sports hall. The yard is small and is located east of the building and a small part is north of the sports hall.

More documents about Vika preschool and what has been done in the SPRING project can be found at
www.nynashamnsnaturskola.se/spring

= The boundary of the yard.

The big tree characterises the yard. The tree is also the only plant that can provide shading. Two sandboxes are placed next to the sports hall of which one is exposed to the sun and the other one placed on the north side. With the project a sun shelter has been put up on top of one sandbox.

A bench has been built around the tree trunk so the children can sit where there is shadow. It is very likely that the bench provides for other activities as well. After the picture below had been taken, the playhouse to the left was installed. Because of the preschool's closeness to water, it is built specifically to look like a boat.

Outside the yard is a parking lot. Two rows with lilacs are planted along the fence. The lilac hedges will provide a vegetation curtain against the parking lot.The space in between the rows will provide a trail for the children to run, perhaps as a vegetation tunnel. The protective barrier will be kept until the plants have grown a bit more.

On the north side of the sports hall is a slide. Behind the slide is a gate leading to the grove behind. The preschool decided not to incorporate part of the forest because it is considered too steep.

Fagervik preschool

Fagervik 11
148 96 Sorunda

Description of the playground before SPRING

Fagervik preschool is a young preschool. It was built in 2003 and consists of four units of which three are used with about 60 children. The yard had the same problem as Skogsnibble. Before the construction all the trees were cut down and there was no budget for the playground. Initially the children could, together with the staff, go out in the forest just outside the fence. But plans of building a residential area on the property resulted in felling the whole forest. Neighbouring the yard is now a clear-cut area and the plans of building a residential area is put on hold. Some problems also occurred during the first years of this preschool. The first time trying to grow a lawn on the yard failed because the pH of the soil bought was too low and the grass could not grow. The whole playground is located on the southern side of the pre-school.

More documents about Fagervik preschool and what has been done in the SPRING project can be found at
www.nynashamnsnaturskola.se/spring
For example, Anne Eriksson's project plan for Fagervik preschool is available there.

= The boundary of the yard.

Several bushes have been planted in the western part of the yard. In the background outside the fence the clear-cut can be seen with just a few trees left. The newly planted bushes do not look that high but from the children's perspective they are significantly high and provide a complete new impression compared to just grass. Protective barriers have been put up around all plantations. A sun shelter above the sand-box were already put up before this project.

One bush plantation next to the fence beside the clear-cut. The only advantage with the clear-cut is that Fagersjön can temporarily be seen now. A ”loaf” is built on the otherwise flat yard to create hilly ground, which is very important for increasing physical activity. It inspires for activity both during the summer season and winter season when it becomes a sledge slope.

When bushes are planted a bit away from the fence the children get the possibilty to run in between. The bushes then have two functions; as sun protection and activity stimulation. Also a willow hut with two entrances provide possibility for running.

One tree is planted next to the old rowing-boat. Bushes have been planted close to the entrance on the southern part of the yard.

In May the biological diversity was manifested through the blooming of the dandelions in the lawn. They should not be underestimated, they are beautiful and can be used for a lot of things. A bush with berries has been planted beside the walkway and a tree next to the parking lot.

Svandammsskolan

Järnvägsgtan 7-9
149 31 Nynäshamn

Description of the schoolground before SPRING

Svandammsskolan is located in Nynäshamn and is a school with preschool classes up to grade 6 (F-6). About 330 pupils attend the school. The school was built in 1951. The schoolground is quite typical: asphalt dominating and makes the impression rather hard together with the football field filled with gravel, as well as the school building built with bricks. In one corner of the yard there are some older wooden houses, also hosting school activities. A green area behind these houses seems to be overgrown with high grass and brushwood. There are also a few big trees and bushes. Some clutter are lying in piles there and some kind of leaf compost. The area has been used by the tenants who are living in the property next to the area. Traces of activity are not visible except the above-mentioned waste-like ones.

More documents about Svandammsskolan and what has been done in the SPRING project can be found at www.nynashamnsnaturskola.se/spring

For example, Anna Lenninger's program proposal for renovation of the yard is available here.

= The boundary of the yard before the SPRING project.

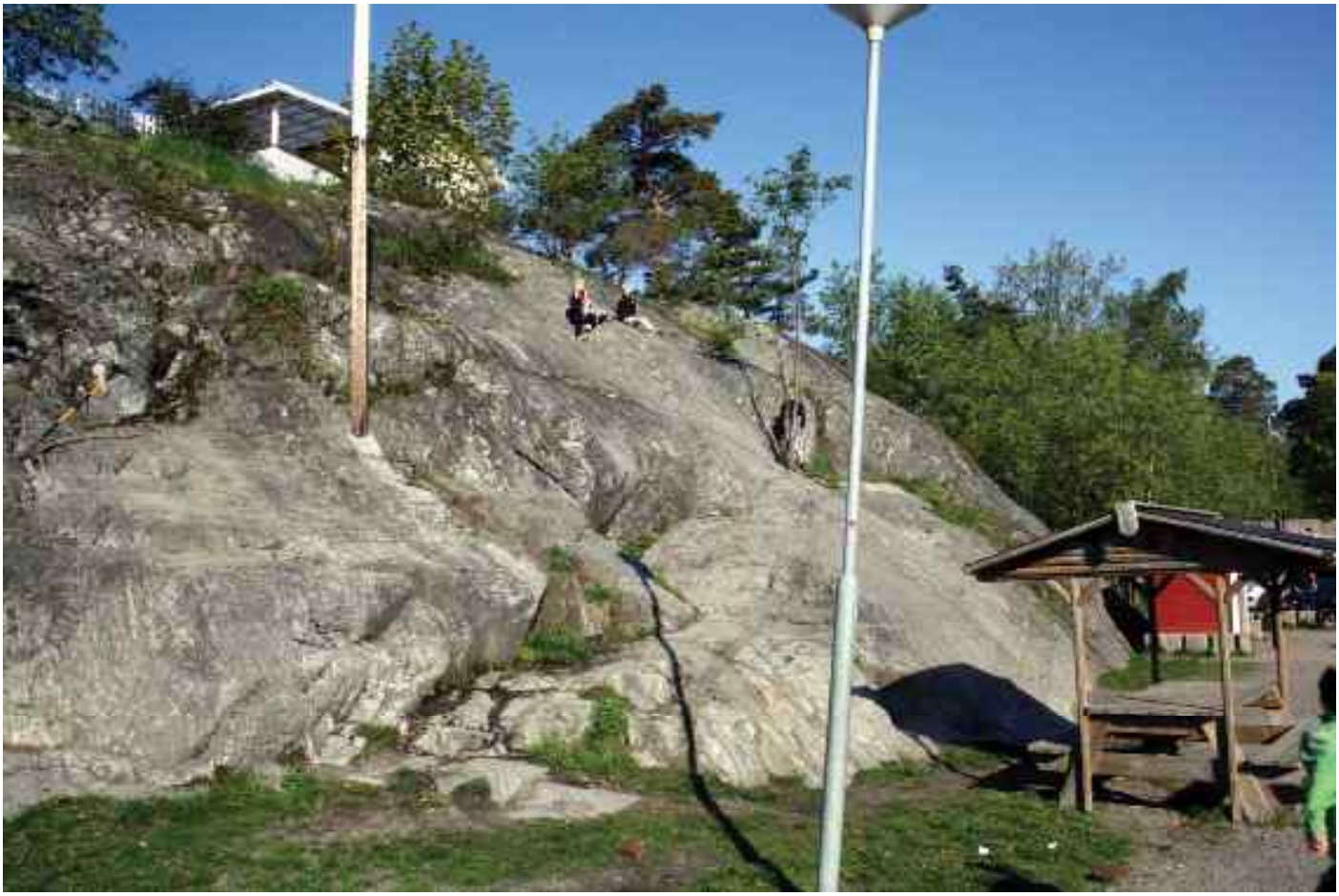
= Incorporated land included in the yard after the SPRING project.

One way to liven up asphalt is to paint it. It is also a way to create more functions than just walking on it. The asphalt can have a pedagogic function or stimulate play and activity. Here, ready-made patterns are burnt into the asphalt.

Many of the pupils in this school have experiences from outdoor-life with boats and therefore it was natural to build ”the bridge”. It was built when the school also hosted pupils in grades 7-9; pupils of these ages have a need to just sit and hang around. The bridge may have got more functions now. Large wooden boards are available in a storage, and when these are put on top of the bridge, it becomes a stage.

The pollarded poplar that died can be seen in the background. For many years the pollarding was forgotten and when it was done it was too late. The trees were cut on the places where they had earlier been pollarded but the branches were to thick so no new shoots could sprout.

A construction with several functions: As a grandstand since it is next to the football field and also as a seat. Seen from the side it also functions as a podium during various competitions. Seats with shelters both from sun and rain are placed on several places on the schoolground. There is a high hill that can challenge the youngest pupils on the southern part of the yard.



The walkway above leads to the new area that the pupils have named ”Grönan” (the green). Grönan is used as an outdoor classroom and is not intended to be used during the breaks. Here is the entrance to the outdoor classroom. The portal is important for identity of the new outdoor room.

Inside the entrance is an oaktree that is possible to climb on. There is an exit on the other side if you pass through the area. Poles have been hammered and the pupils have put brushwood there to make a natural fence. The many sloes in the area burst out in full bloom in May.

There is an open space in the middle of the area where the pupils have built a gathering place with a fireplace. The open space is surrounded by vegetation like bushes, trees and brushwood. The property of the tenants who previously used the area can be seen in the background. The tenant association has terminated their ”loan” of the municipality-owned land for the sake of Svandammsskolan. Here, the avens are blooming in May and June.

With these picnic tables the pupils have got working places in the out-door classroom.

There is some brushwood in the area that is hard to get through. You can choose either to clear the area or wait and see what happens when the pupils enter the area. After a while tracks appear inside the brush-wood. Thereafter it is possible to clear brushwood that is spreading to the open spaces or brushwood that is about to ”suffocate” a tree. By doing this, the area can be divided into different rooms with different functions.

Vanstaskolan

Ösmo centrum
Box 40
148 21 Ösmo

Description of the schoolground before SPRING

Vanstaskolan is located in Ösmo and is a school with pupils from preschool class up to the ninth grade (F-9). Almost 600 pupils attend this school. The lower and middle stages (grade F-6) were built in 1971 and the upper stage (grade 7-9) was built in 1976. The schoolground consists of a lot of asphalt, a football field filled with gravel and the building is of red-painted wood. The area is big and contains also some grass areas and groves. The location of the schoolground between the center of Ösmo and residential areas have made the whole schoolground a passage for the public. It was previously a problem both with mopeds and cars passing through the yard. During recent years the yard has been blocked with further fences and concrete obstacles to avoid dangerous traffic on the schoolground. The problem with many people passing through during school time still remains. Asphalt has been removed in a previous schoolground project, which provided a softer impression than before. Big parts of the yard are very torn with cracks and pits in the asphalt, scrubby thickets, broken benches and garbage bins. For an outsider the schoolground may be difficult to find because lack of signs; for example, there is no sign with the school's name. With the right actions, the schoolground has potential to become a nice yard with possibilities to find shaded places, places for learning and places that stimulate physical activity.

More documents about Vanstaskolan and what has been done in the SPRING project can be found at www.nynashamnsnaturskola.se/spring
For example, the design of the activity park and information about the off-SPRING project where the artist couple Folkform illustrates part of the yard as part of a collaboration project with the National Public Art Council, is available here.

= The boundary of the yard.

Inneryard

"The children's tree" was planted at Vanstaskolan on June 17, 2010. This thanks to a cooperation between the SPRING project and Jonas Paulman who ran the bridge marathon from Copenhagen to Malmö on Saturday the 12th of June, and therafter he cycled to Vanstaskolan in Ösmo. On the way he stopped and planted trees in Växjö, Jönköping, Norrköping and on Södermalm in Stockholm. At Vanstaskolan, the pupils were waiting and together with Jonas they ran the last 200 meters to the hole made by the Park unit. Jonas told about his journey and Liselott Vahermägi held a speech and cut the ribbon, followed by the Park unit planting the big chestnut tree. Handelsbanken sponsored the sign and ICA sponsored fruits and balloons to all the pupils. All this cooperation and engagement to raise the children's rights to a decent childhood, and at the same time providing the school's inner yard with a shading tree, decorating the otherwise barren place.

Southern side

During the artist couple's work with the identity of Vanstaskolan, the wish of having a sign was raised. Nowhere was a sign with the name of the school. Below is the place where a sign could be put up. Also wishes about seats between the sports hall and the premises for the upper stages were raised during one of the workshops arranged by Folkform in cooperation with the National Public Art Council.

Western side

On the hill next to the walkway, on the western side of the upper stages of Vanstaskolan, installation of several artworks were planned for during 2012 by the artistic couple Folkform. Also paintings related to the artworks were planned on the asphalt. Several other illustrations to strengthen the identity of Vanstaskolan were planned for while this documentation was written.

Northern side

On this area, north of the upper stages' premises and west of the lower and middle stages, an activity park is planned for during spring 2012. During the SPRING project, the pupils in F-5 had a wish to get a motor skills track. This area was therefore planned to be a park with activity as the theme. The work of creating the activity park started in June 2012. The picture below shows the empty space where the activity park was later created.

Northern side - the activity park

Naturally the theme for the activity park is *activity*. The pupils can either use it for ”not-touch-the-ground” or as a motor skills track but also for different types of team exercises or as gathering places and sitting places. When the activity park is ready, also some vegetation will be planted in the area to provide shades.

A railway was put in the middle of the activity park. Sleepers will also be put under it.

There is both a symbolic and pedagogical idea behind the different installations. The stone circle reminds of wheels and action. The bricks towards the middle is also the radius of a circle. Here, the pupils can walk the circumference and the radius. The pendulum to the right reminds of action but maybe also about commuter trains. The rail in the middle is an apparent connection to the people living in the area and many of them being commuters. The tires to the right resemble a water molecule H_2O.

The asphalt painting resembles parts of a totality. The pupils can use them in their work with fractions and percentage in mathematics. The old cycle stand gets new paint and function and will be installed in the activity park.

Above is the grove behind the activity park which is one of the nicest places on the school-ground.

A path in the northern part of the yard and a small fenced yard, which became preschool yard again after the project. The school's and the preschool's staff wish that the path is not used by the public since the walkway passes through the whole schoolground.

Eastern side

In previous ambitious projects the asphalt was removed and replaced by a lawn on the eastern side. While writing this, decorations are planned for the southern wall of the sports hall. It is done by the artist couple within the collaboration project and financed by the National Public Art Council.

Vika school

Bondeängsvägen
148 60 Stora Vika

Description of the schoolground before SPRING

Vika school is located in Stora Vika. The school has about 60 pupils from preschool class to grade 5 (F-5). The school was built in 1965 and extended in 1995. The school consists of several joined houses. The yard is relatively big but lacks room and characteristics. Centrally next to the school building is a big asphalted area that could be considered an inner yard. Outside that part is an area of play equipment and a football field. A muddy slope joins the inner yard with the rest of the yard.

More documents about Vika skola and what has been done in the SPRING project can be found at www.nynashamnsnaturskola.se/spring

For example, Anna Lenninger's program proposal for renovation of the yard is available here.

= The boundary of the yard.

Three trees have been planted and sitting places built around them in the middle of the asphalted area. Perennials have been planted in the middle. Two stairs have been built on the muddy slope with three trees planted in between. At a later stage, the big limestone block was also added betwen the trees and the sitting places, and the smaller limestone rocks on the slope. The protective barrier is also in place.

South of the asphalted inneryard, bushes have been planted in two corners of a small grass field. A protective barrier has been put up.

A tree has been planted on the southern part of the yard. Below shows the big gravel field to the left and the fenced football field to the right. The bottom picture shows the small play area next to the pres-chool yard.

Three plantations in the play area outside the football field. All of them have protective barriers.

Kyrkskolan

Kyrkgatan 15
148 70 Sorunda

Description of the schoolground before SPRING
Kyrkskolan is located in Sorunda. The school has about 105 pupils from preschool class up to grade 5 (F-5). The school was built in 1949 and extended in 1969. It consists of several joined houses. The schoolground is situated in an open farmland. The yard is relatively big but lacks room and shelters for wind and sun. A sense of possibilities to make something with this yard is good. However, limited resources are risking the actions to drown in the big area.

More documents about Kyrkskolan and what has been done in the SPRING project can be found at www.nynashamnsnaturskola.se/spring
For example, Anna Lenninger's program proposal for renovation of the yard is available here.

= The boundary of the yard.

The southern part of the schoolground could be considered the inneryard. It consists of an asphalt field with two basket goals and in the middle an ”island” with a sandbox and a tree. There are swings and a tree next to the sports hall. Within the project, the sandbox has been made bigger and got solid side boards. Three trees have been planted between the asphalt and the play area in the south. Finally, also the new sandbox in the middle of the school ground was ready-built and the existing tree stands right in the middle of it, providing shades.

The southern part of the yard consists of a relatively big grass area where a motor skills track had previously been built and big logs had been put out. Bushes have been planted here.

The eastern and northern part of the school can be considered as the school's backyard, consisting of grass and even some trees, as well as scarce play equipment. The piles of soil from the holes dug when planting trees and bushes, have been used here to create a play environment. Initially the idea was to create something of the piles but for different reasons they were not formed into anything.

Half a year later it is very obvious that the two piles inspired physical activity. They are well-tramped.

A stone labyrinth was previously made on the western side of the school. The areas on the western side are big and also a football field is located here. Bushes have been planted in the slope and two trees at the football field.

A grandstand similar to the one at Svandammsskolan has been built beside the football field. It functions also as podium and sitting place.

Segersäng preschool

Inägan 8
148 40 Segersäng

Description of the playground before SPRING

Segersäng preschool is, when the SPRING project is being implemented, the youngest preschool in the Nynäshamns municipality. It is located in Segersäng which is a community in big change due to the large settlement of people in the newly built residential areas. The preschool has seven units. When the SPRING project was initiated, the municipality was planning the construction of this preschool. A drawing had already been made when the planning department and the manager of the Property and Service department were informed about the results in the SCAMPER study, the study that the SPRING project is based on. Information about the sun's negative effect on children and the importane of vegetation for the physical activity resulted in a new drawing. The building was turned 180 degrees and the forest behind the building was incorporated in the yard. With this action, Segersäng preschool became the pilot study in this project.

= The boundary of the yard before the SPRING project.

= Incorporated land included in the yard after the SPRING project.

This is the area closest to the building on the southern and eastern sides. The plantations facing south are shown below. In the original drawing this would have been the yard and probably a sandbox and other play equipment would have been placed in this sun-exposed environment.

Swings and one of the sandboxes have now been placed here, integrated in the natural vegetation on the southern part of the yard. Further inside the forest, several different installations have been put up to stimulate the play.

With help from parents and many ideas from the preschool staff, the yard has become even more exciting to spend the time.

Loose material such as pipes are important for the children to be stimulated to build and create. Pipes and gutters are naturally especially suited to pour water in, to roll balls inside or test which things move fastest.

Below is an area that caused some problems and disagreement how to use it. A fence was put up for the children not to risk falling. The children then figured out to walk on the inside of the fence. When this photo was taken, the area had been closed by yet another fence.

As more units have opened, the yard has been extended on the northern side. Above is a gate shown and outside is a gathering place.

SPRING

Shadow **P**edagogy **A**ctivity
In **N**ature and School **G**round environments

A documentation by a public health project implemented in the Nynäshamns municipality 2008-2011 written by Nynäshamn Nature School.

Nynäshamns Naturskola

NYNÄSHAMN · EKOKOMMUN ·

Hälsa till Nynäshamn!