

Window Farming – Transformative Teaching in Secondary School

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Introduction

In August 2012 a team of teachers at a secondary school in the City of Lund Southern Sweden started a project on *Health and learning by cultivation*. Teachers in subjects ranging from handicraft and home economics, to science and technology, as well as students in grades 6-7, were involved in various learning activities during the first year of the project. The aims of the project were to revitalize the school grounds and use them in the education, as well as create incentives for both teachers and students to engage in learning in the outdoor environment.

Kerstin Sonesson and Agneta Rehn were invited by the City of Lund to follow and research the project. Before the project started, it was clear the team of teachers had great visions about the possibility to create and develop an outdoor classroom and use it in different subjects regarding cultivation.

This poster is focused on the teachers, their thoughts on practical and didactical questions, and the challenges they faced when they introduced cross-disciplinary teaching and inquire-based learning while working with window farming.

Window Farming Project



As the growing season is short in Sweden, one teacher in handicraft inspired to introduce Window Farming after a visit to "Kulturhuset" in Stockholm.

The handicraft teacher introduced a task to the students to work together in groups of three to design and construct a system of pots, water circulation and lighting for one window.

The groups had a model and materials available, but no detailed instructions. The construction projects were placed in the classrooms of handicraft and home economics, and the work was mainly conducted during lessons of handicraft and technique.

Interviews

We conducted a qualitative study by interviewing the team of teachers, both in a focus group and individually, before, during and after the Window Farming Project.



Results

Thoughts of the teachers:

Use the big windows

- To improve the indoor air quality in handicraft room
- In home economics to be self-sufficient in herbs
- For decoration



Syllabus

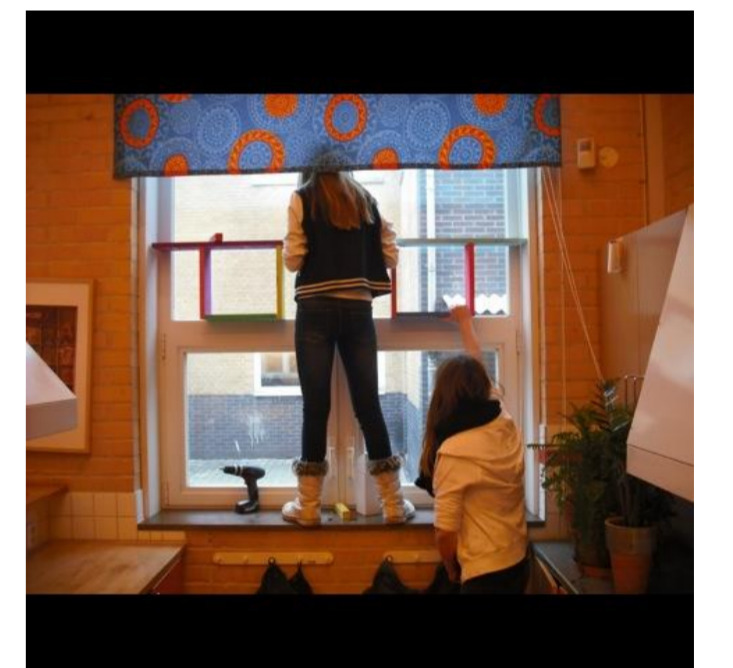
- Knowledge content and working methods were grounded in the syllabus
- Inquiry-based learning to develop understanding
- Cross-disciplinary education for the students to develop a holistic view

Working method

- Students unaccustomed to work in groups with a project in Handicraft
- Students unaccustomed to work with more than one school topic in the same lesson
- Students unaccustomed to do a project for the school vs. an individual product to take home

Short lessons

- Stress moments for both teachers and students
- Lack of time to work inquire-based to develop understanding
- Students had focus in doing and asked for key answers



Safety

- Electricity and water in combination is complicated

Conclusion

Certain aspects of the Window Farm Project were very successful, as four functioning window farming systems were constructed and placed in four windows at the school. Although the students were unaccustomed to the learning methods applied, i.e. inquiry-based learning and cross-disciplinary education, they were very proud of their constructions.

However, the team of teachers realized that there is a need to better facilitate feedback to the students at the completion of the project regarding what the learning outcomes were. We concluded from the teachers' narratives that there are many opportunities to connect window farming and similar projects to education in natural sciences as well.

What comes next

As a second Window Farming Project starts with a new group of students at the same school, we will focus our continued study on the learning outcomes and attitudes of the students.

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