A school garden to engage community

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My relationship with the school garden…

Tesi doctoral

Educació científica en comunitat des d'un enfocament sociocultural

L'hort escolar com a entorn d'aprenentatge per incloure les famílies

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This is a small research project that took place in a small village and in small school...

In 2009, I was working as environmental educator for some local authorities...

Teachers in this small school wanted to involve the community (families and neighborhood) in the school activities through gardening.

This school was in a rural area 60 km north from Barcelona

The official languages are Catalan and Spanish. Students learn both at the same time in school, but the majority of the lessons are given in Catalan.

The educational laws are different from the other regions of Spain.

Vegetable gardens are becoming a popular educational tool in Catalan schools.

The vegetable gardens are one of the most popular environmental topics chosen by schools in Catalan Green schools program
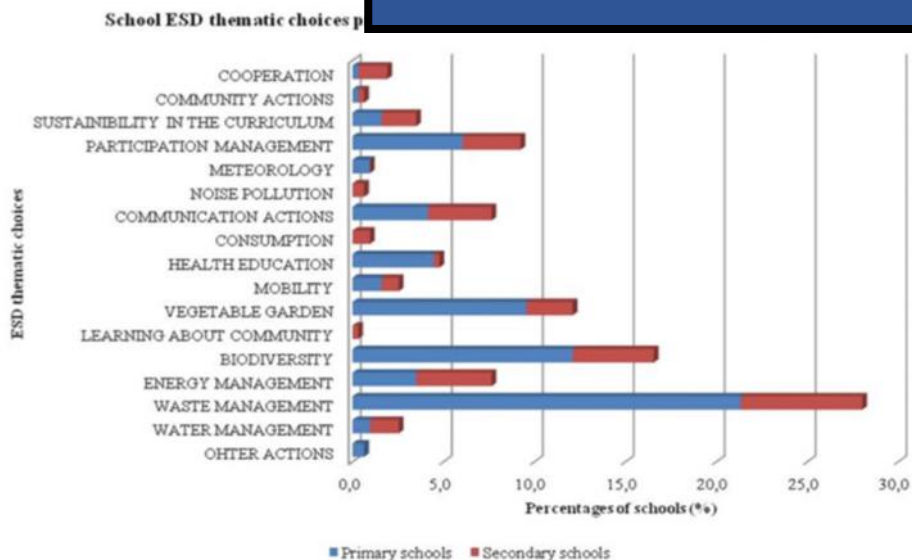(Espinet, Junyent, Amat and Castelltort, 2015)

School ESD thematic choices p...

ESD thematic choices:
COOPERATION
COMMUNITY ACTIONS
SUSTAINIBILITY IN THE CURRICULUM
PARTICIPATION MANAGEMENT
METEOROLOGY
NOISE POLLUTION
COMMUNICATION ACTIONS
CONSUMPTION
HEALTH EDUCATION
MOBILITY
VEGETABLE GARDEN
LEARNING ABOUT COMMUNITY
BIODIVERSITY
ENERGY MANAGEMENT
WASTE MANAGEMENT
WATER MANAGEMENT
OHTER ACTIONS

Percentages of schools (%)

■ Primary schools   ■ Secondary schools

Fig. 2   School ESD thematic choices

Several City Halls are promoting vegetable gardens in their kindergarten and elementary schools
(Espinet, Junyent, Amat and Castelltort, 2015)

Vegetable gardens are becoming a popular educational tool in Catalan schools.

At University, in teacher education programs, vegetable gardens are becoming a popular tool (not only in Catalonia, but also in Spain)
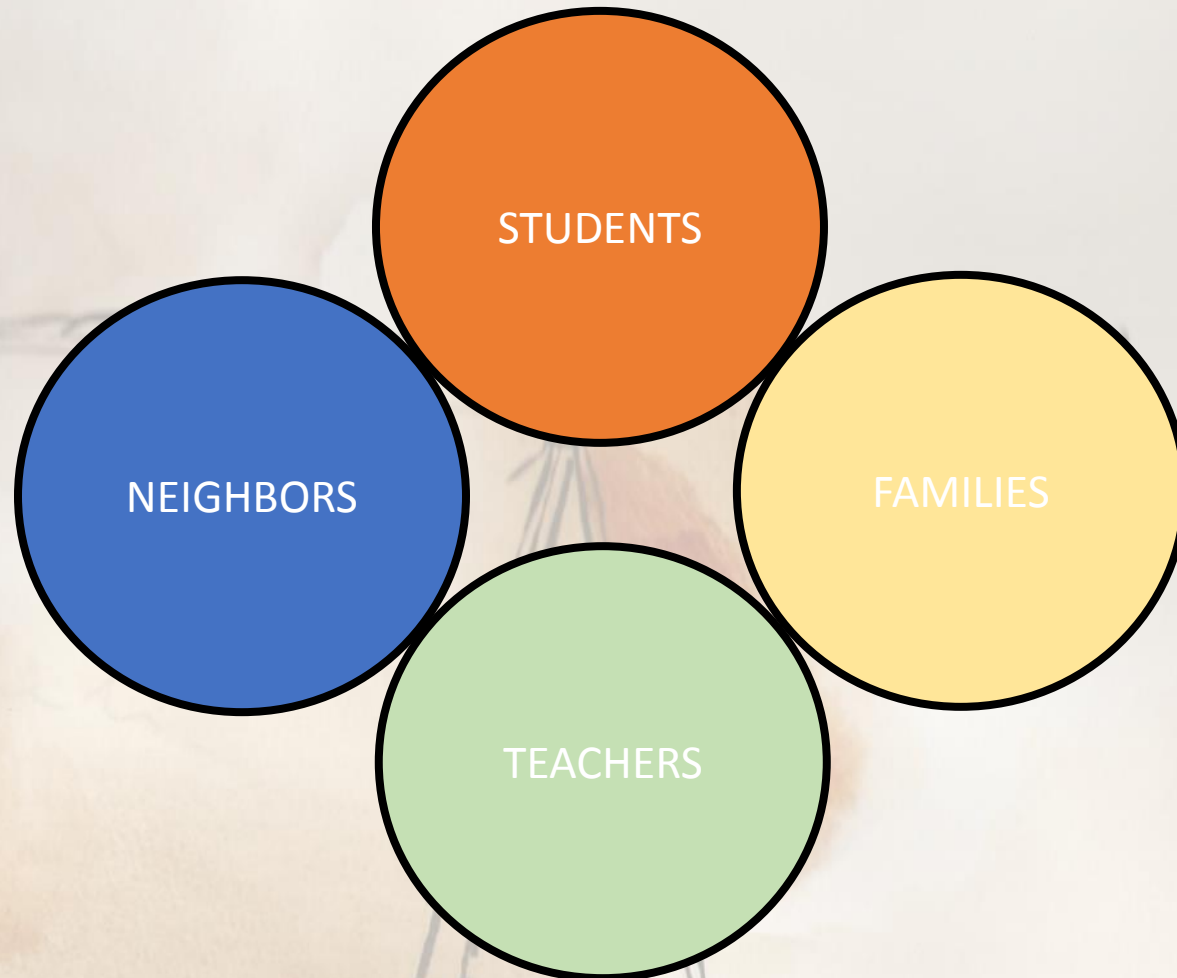(Red de Universidades Cultivadas)

The main goal of Research Group GRESC@ is to develop research and innovations based on School Agroecological approach

The main goal is improving the school's food system

PRODUCTION

SCHOOL
VEGETABLE GARDEN

School
science

Social and
political
movements

SCHOOL
KITCHEN

SCHOOL
DINING ROOM

TRANSFORMATION

CONSUMPTION

Everyday
knowledge
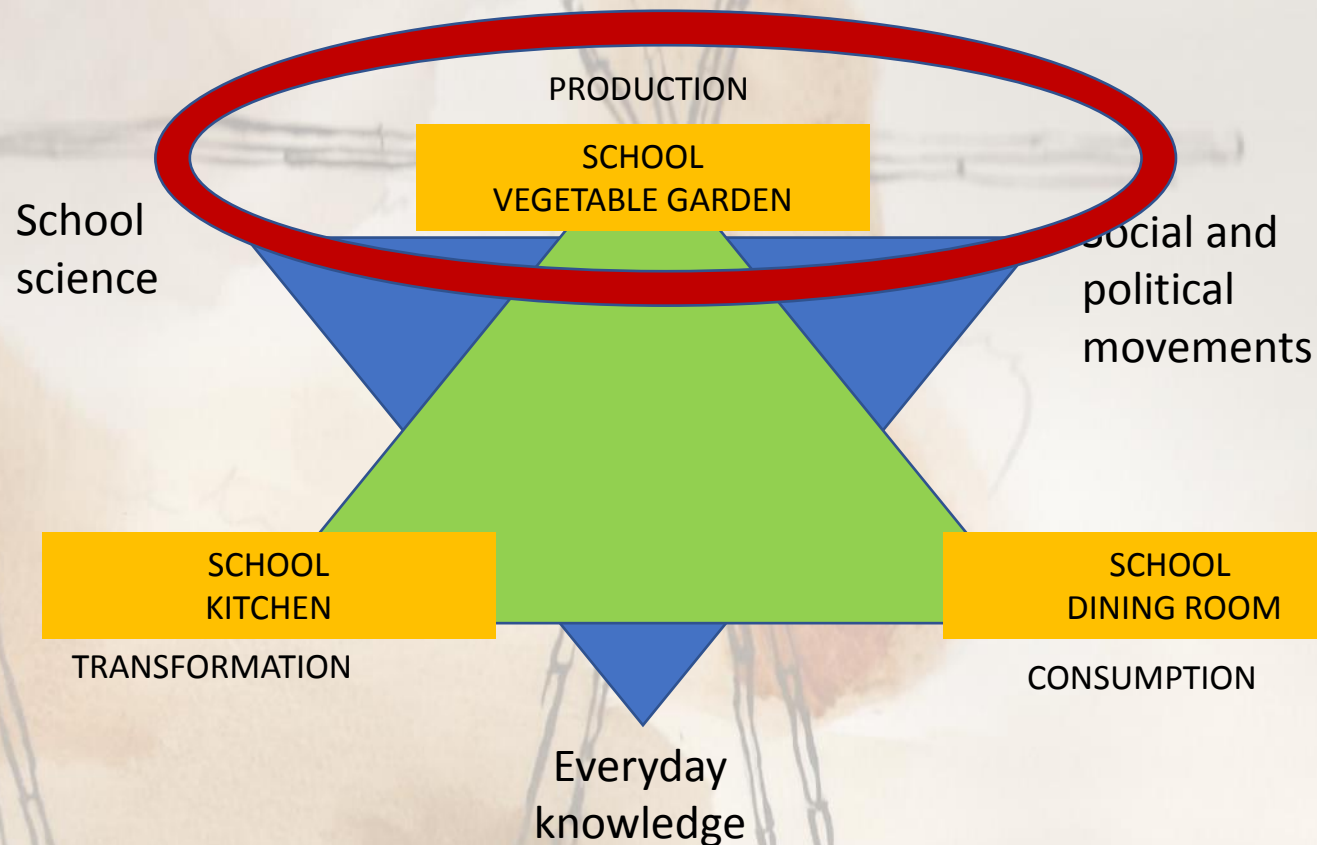
In order to promote this change is absolutely essential to engage different community stakeholders

STUDENTS

NEIGHBORS

FAMILIES

TEACHERS

Several studies claim that parental involvement in their children education…

… plays an important role in the student's educational outcomes. (Epstein & Sanders, 2000; Barton *et al,* 2001; Hill and Tyson, 2009; Tan & Goldeberg 2009).

… promote a better understanding between teachers and families (Epstein & Sanders 2000)

What kind of activities do you know for involve parents in the school?
What kind of activities were you involved in as a parent or as a child?

However, we have to understand parents as an active actors of the school life… (Barton, 2010; Rodríguez, 2013)

We should not view parents engagement from the deficit perspective, but we have to understand from they are agential actors (Barton, 2010)

For this reason, after a year of regular meetings, shared activities were created.

There were monthly activities, which different actors from the community worked together in cooperative groups

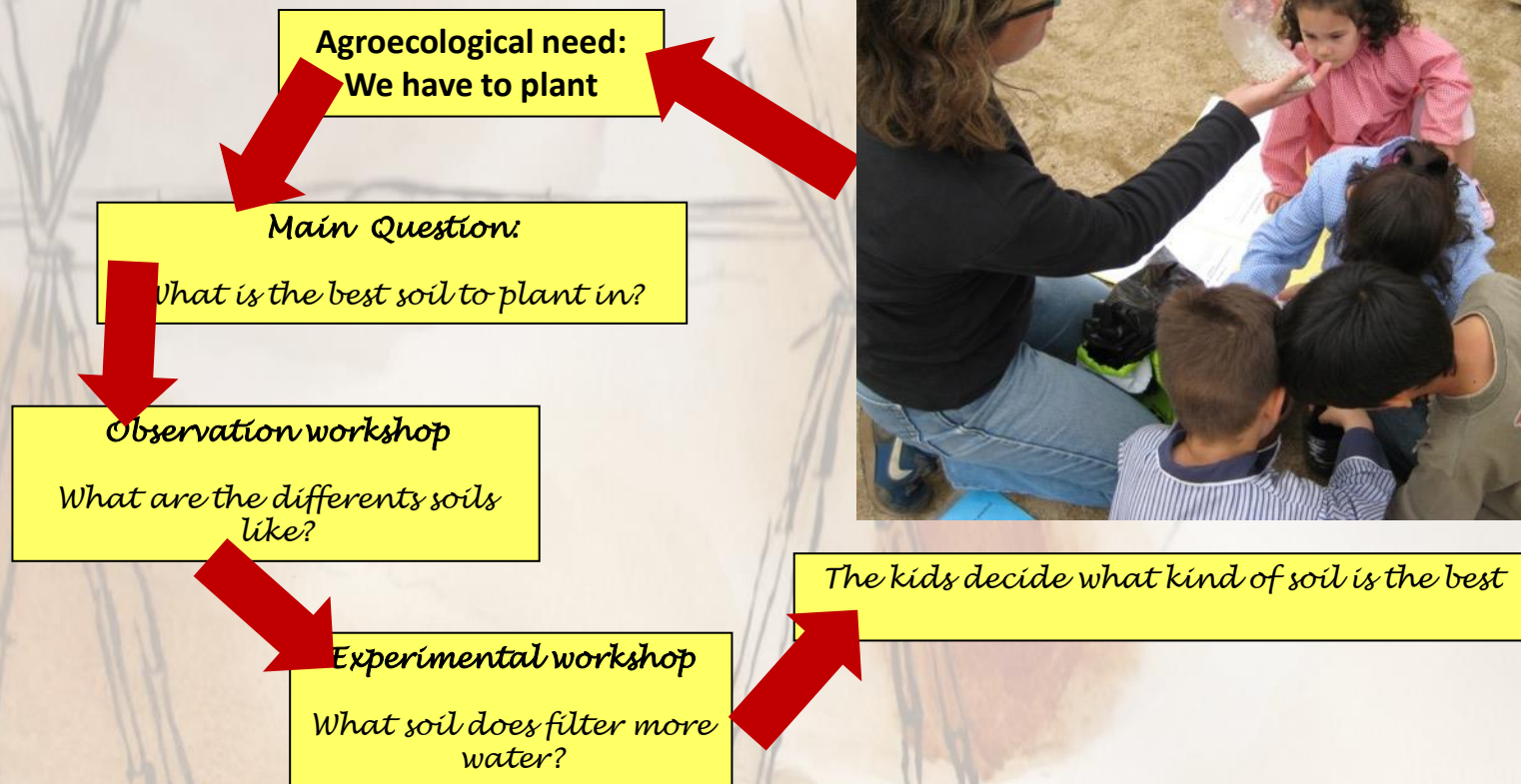There were students from 3 to 12 years old.

Parents usually led the activity

The shared activity was composed of three workshops, each one lasting twenty minutes.

The shared activity were designed to develop a scientific explanation about agroecological phenomena

For this reason, after a year of regular meetings, shared activities were created.

Agroecological need: We have to plant

Main Question:

What is the best soil to plant in?

Observation workshop

What are the differents soils like?

Experimental workshop

What soil does filter more water?

The kids decide what kind of soil is the best

For this reason, after a year of regular meetings, shared activities were created.

This kind of activity was carried out over a four-year period

I wonder why this project could be sustained over such a long time?

Macrostructures
(What in the school influences shared activities)

Microstructures
(What was going on in the shared activities)

Microstructures: or which structures in the shared activity allow and constrain the participation of students and parents

How did parents manage the workshops in the shared activity?

ParentS were concerned about the participation of all students.

For this reason, they provide opportunities to interact, especially for kindergarten students

Microstructures: or which structures in the shared activity allow and constrain the participation of students and parents

How did parents manage the workshops in the shared activity?

They paid special attention when the primary students had to write the results of the observation and the experimentation workshop on the worksheet.

Macrostructures: or what in the school structure allows and constrains shared activities

One useful model is the *boundary object* (according to Star & Griesemer, 1989)

those objects that both inhabit several intersecting worlds and satisfy the informational requirements of each of them.

the creation and management of boundary objects is a key process in developing and maintaining coherence across intersecting social worlds

Macrostructures: or what in the school structure allows and constrains shared activities

Parents

Neighbors

Teachers

Students

THE VEGETABLE GARDEN AS A BOUNDARY OBJECT
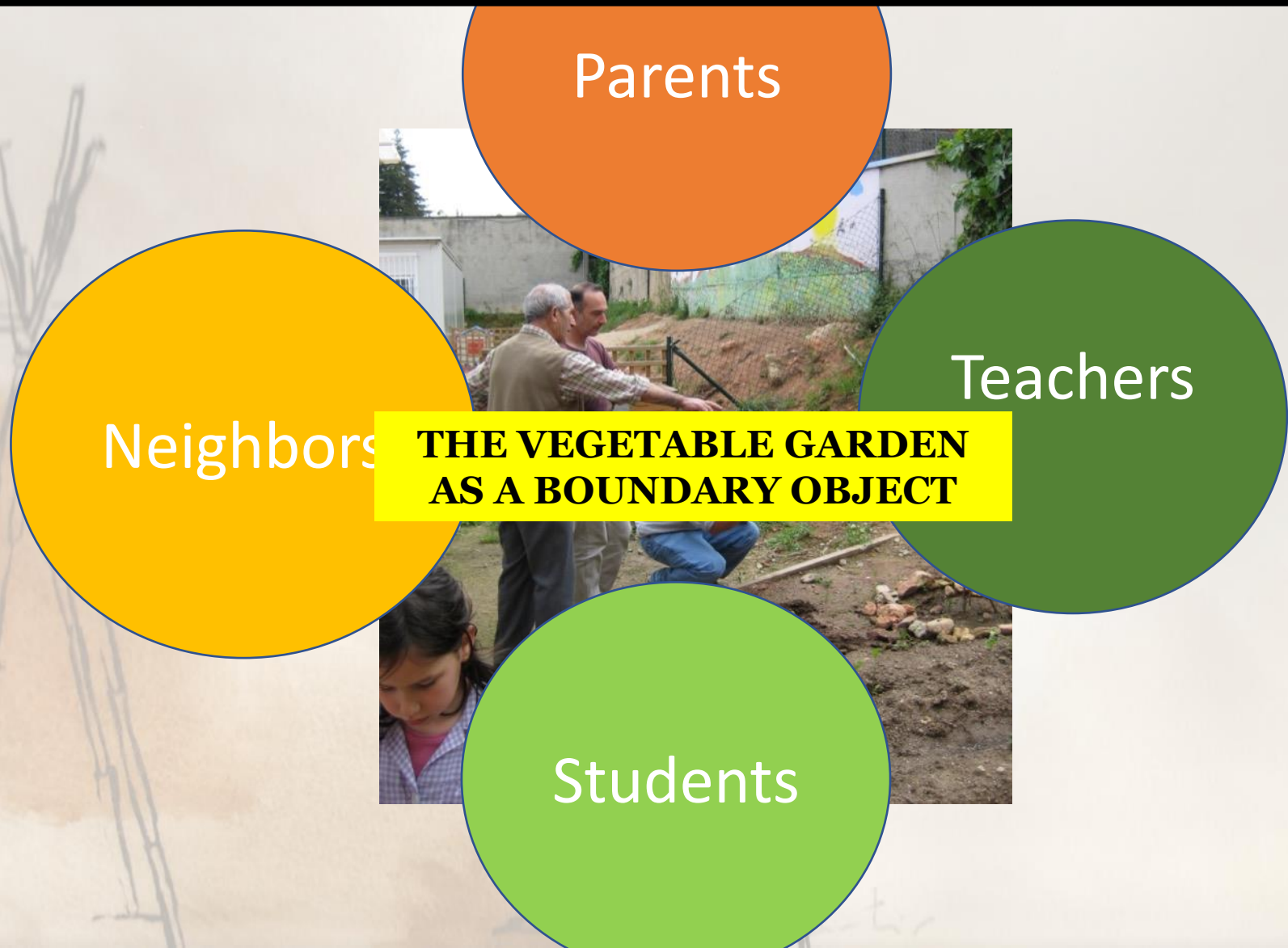
Macrostructures: or what in the school structure allows and constrains shared activities

The features of boundary objects (according to Star & Griesemer, 1989)

Plasticity

They are plastic enough to adapt to local needs, but robust enough to maintain a common identity across sites.

Vegetable garden is plastic enough to adapt to different stakeholders' needs.

- Parents and neighbors wanted to promote local knowledge about agriculture
- Teachers wanted to promote a better understanding of scientific and social content.

Macrostructures: or what in the school structure allows and constrains shared activities

The features of boundary objects (according to Star & Griesemer, 1989)

Structure

They are weakly structured in common use, and become strongly structured in individual use.

Vegetable garden can support different grades of involvement

- Neighbors became assessors.
- Teachers became managers and leaders of the food garden
- Parents became helpers to promote a better understanding about scientific and social content. And they became teachers also

Macrostructures: or what in the school structure allows and constrains shared activities

The features of boundary objects (according to Star & Griesemer, 1989)

Meaning

They have different meaning in different social worlds but their structure is common enough to more than one world to make them recognizable

Vegetable garden purpose was not the same. It depends on the stakeholder.

- While teachers and parents purpose was education through the food garden, the purpose of neighbors was the production of the food garden.

Macrostructures: or what in the school structure allows and constrains shared activities

We had to face different tensions inherent of any learning environment

First of all, we had to deal with the physical structures, such as time and space in order to provide a participation space for the families, neighbors and teachers.

After that, we had to deal with the community structures, such as the division of labor within the teachers team and the involvement of immigrant families

Macrostructures: or what in the school structure allows and constrains shared activities

The collaboration between different community actors is possible, but we have to think about what objects are able to cross different social worlds.

If we want to involve different community actors in learning environments, we have to create learning environments with a common background

The vegetable garden is a good learning environment to involve different community actors, probably because all of us share an agroecological experience, through food production or food consumption