Discursive practices in participative design activities in school agroecology

Analysis of the discursive practices of primary school students in the design of an irrigation system for organic school garden

Data analysis framework: discourse analysis
Analysis of the discursive dimension of participation

The main research question
How do primary education students construct meanings through interaction in a participative design process at the school organic garden?

Action Research project: the collaboration with a local primary school
School project: collective design of the organic garden irrigation system

Environmental Education and School Agroecology
agroecology is a sustainable educational approach
Comprehensive life sciences
The interdisciplinary approach to teaching and learning about agriculture and ecology
Teaching and learning at school

Learning how to participate in society through environmental decision-making at school

Who and how participated?
Which is the role of the children in the process?

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Environmental Education and School Agroecology
Agroecology is a transdisciplinary pedagogical approach. It involves the study of the relationships between humans and nature. It promotes the study of agriculture and ecology and the environment.

Learning how to participate in society through environmental decision making at school
Afford the opportunity to discuss the benefit of natural environments, the need for conservation, and the importance of managing resources sustainably.

Action Research project: the collaboration with a local primary school
School project: collective design of the organic garden irrigation system

Who are the participants?
Who and how they',...
Environmental Education and School Agroecology

Agroecology is a sustainability field that approaches food as a basic human activity. It has an orientation to social justice that confronts the economical power concentration on food, and the degradation of agricultural biodiversity and natural resources.
Learning how to participate in society through environmental decision making at school

Education for sustainability through agroecology and vegetable gardens gives children an opportunity to learn how to participate in environmental decision making and action.
Action Research project: the collaboration with a local primary school

School Project: collective design of the organic garden irrigation system
The main research question

How do primary education students construct meanings through interaction in a participative design process at the school organic garden?
Data analysis framework: discourse analysis

Analysis of the discursive dimension of participation
Children decision criteria in the design of the irrigation system

Ecological
- "We have to take into account of plants water needs."

Socio-cultural
- "Who will manage the irrigation system during school holidays?"

Economical
- "We can sell surplus to pay the materials we need."

Health
- "There can be hygienic problems if we irrigate the garden with the water leftovers of school campus."

Technical/Agronomical
- "I propose to collect water from the roof in a water tank."

"We have worked hard and so the result is good. The irrigation system is quite appropriate for our garden."
Technical/Agronomical

"I propose to collect water from the roof in a water tank"

Socio-cultural

"who will manage the irrigation system during school holidays?"

Ecological

"we have to take into account of plants water needs"

Economical

"we can sell cakes to pay the material we need"

Health

"there can be hygienic problems if we irrigate the garden with the water leftovers of school canteen"
"We have worked hard and so the result is good. The irrigation system is quite appropriate for our garden."
The argumentative oral discourse in a participative design process in primary school
Conclusion 1
Use the water leftovers from the school canteen

Conclusion 1.2
We can put a little purifying plant

Economical argument
A purifying system is too expensive

Social argument
Who will bring the water to the food garden?

Conclusion 1.3
We can use the water of the pitchers and not use the water left in glasses

Conclusion 1.4
Two different people can put the collected water in a water tank every day

argument sequence
Conclusion 1

Use the water leftovers from the school canteen
Health argument
This water may cause health problems
Conclusion

1.2

We can put a little purifying plant
Economical argument
A purifying system is to expensive
Conclusion

1.3

We can use just the water of the pitchers and not use the water left in glasses.
Social argument
Who will bring the water to the food garden?
Conclusion
1.4
Two different people can put the collected water in a water tank every day
Who and how participates?

how to make decisions?

"I think the whole class assembly we gave more than in small groups"
how to make decisions?

Consensus

Votes
Building a whole group proposal

Group 1 proposal
Group 2 proposal
Group 3 proposal
Group 4 proposal

The whole class assembly we gave more than in...
"I think the whole class assembly we gave more than in small groups"
Which is the role of the teacher in the process?

"In a debate there is always someone who
make questions
manage participation
summarize
and redirect
healp reach consensus
"In a debate there is always someone who brings order, and this is the teacher, but children also have to do things their own, not always up to an adult"