

European Network for Environmental Citizenship Cost Action CA16229

Environmental citizenship in formal primary education

Dr. Marta Romero Ariza

University of Jaén (Spain) mromero@@ujaen.es

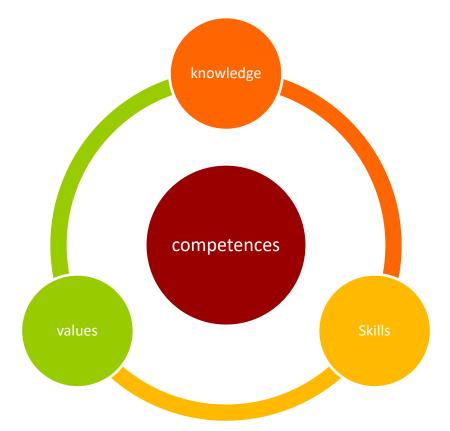
On behalf of WG1 group

Jan Cincera, Marta Romero-Ariza, Mirjana Zabic, Marianna Kalaitzidaki, María del Consuelo Díez-Bedmar



Environmental Citizenship

"...responsible **pro-environmental behaviour** of citizens who act and participate in society as **agents of change** to address environmental problems... (ENEC, 2018)



Privately/publicly Local/national/global Individually/collective Present and future



Driving questions:

- 1. What are the main educational goals for EEC in primary formal education?
- 2. How these goals can be achieved in Primary formal education?









Which educational goals?

Early ages: more willing to develop particular values and dispositions (Ampuero, 2015).





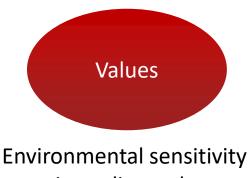


knowledge

Weak or non direct link

Set the basis of ecological understanding (energy flow, food chains...) Misconceptions (Abdullah, 2015; Saglam & Ozbeg, 2016; Hadenfelt et al., 2016).

Educational goals EEC in Primary Formal Education



(appreciation of nature, social justice...) Schwartz, 1992, 1994



Saving energy, Recycling/reducing Action skills (Wiek et al., 2011)



What are the key features of effective interventions?

- Participatory (engagement and collaboration)
- Constructive (meaning and solutions)
- Critical (questioning)
- Reflective (thinking of causes, consequences and actions)

Promote a sense of:

- Responsibility
- Engagement
- Empowerment



Hungerford & Volk (1990); Kyburz-Graber (2013)



What pedagogical approaches exhibit key features for EEC?

- Transformative learning (diverse groups, real problems)
- Service-Learning (learning through community service)
- Action-based and task-based (thinking and action towards an objective)
- Inquiry-Based-Learning and Project-Based Learning
- Socio-Scientific Issues and Socially Acute Questions (science in/for society, different perspectives, deliberation, negotiation...)

(Karpudewan & Roth 2018; López-Azuaga & Suárez Riveiro, 2018; Morin et al., 2013; Notari, & Lee, 2016; Song, 2018; Stetsenko & Arievitch, 2014)



How are these pedagogical approaches used in Primary school?

Andersen, 2017: Not much used in primary school.

Ampuero et al., 2015:

N = 499 primary school students

Students engaged in local activities based on positive psychology (positive emotions, traits and referents).

Results: collaboration, empowerment and decision making in local activities, strengthening empathy, care, reflective thinking and personal and collective responsibility for a sustainable future.



Future lines of work

- Robust model for EEC: design principles for educational interventions.
- More empirical evidence of the impact of interventions.
- Understanding of factors that hinder or support EEC in primary school.
- Equipping teachers with the knowledge, values, skills and dispositions to promote EC in primary formal education.





UJA. Universidad de Jaén

Dr. Marta Romero Ariza Science Education mromero@@ujaen.es