

# Environmental stewardship and sustainability education: Pathways to peace



Maria K. McKenna, Ph.D. University of Notre Dame Notre Dame, Indiana

Julia A. McKenna, City of South Bend Green Ribbon Commission, iMatter Youth Ambassador, South Bend, Indiana, USA

## Research Question

How can a case study of a North American Montessori education program using land based learning techniques in the spirit of Montessori's teaching be of service to the wider educational community?

## Introduction

Maria Montessori is an often overlooked and undervalued contributor to education aimed at creating a more just, peaceful, and sustainable world. As Montessori notes, "the land is where our roots are. Children must be taught to feel and live in harmony with the Earth." Montessori provides philosophical, theoretical, and practical ideas for modern educators related to social innovation and sustainability with children, including honoring planes of development and the "natural tendencies" of the "absorbent mind".

The underlying assumption in this work is that as a community committed to Montessori philosophy, we see education centered on environmental stewardship and sustainability as moral imperative. As such, as advocates of Montessori education we must find ways to share the deep connections of Montessori education to this type of environmental education.

*I love feeling connected to the land through my farm work, and feeling like part of the world and the grand scheme of life. – Student, Age 13*



## Research Background

Montessori's prolific writings embody the value of environmental education as a means of working toward lasting peace. Her work remains instructive to Montessorians and non-Montessorians alike on how educators and caregivers can best tap into the wonders of the natural world and children's innate curiosity (see especially: *To Educate the Human Potential, The Absorbent Mind, Lecture #9 of 1946 London Lectures, From Childhood to Adolescence, Education for Peace, Education and Human Development*).

Place based and Indigenous education experts agree on the fundamental necessity of experiential learning and the centrality of nature to experiential learning (Cajete, 2010; Kolb, 1984, 2014; Louv, 2008; Sobel, 1999, 2004, 2008; Greene, Burke, & McKenna, 2016).

Peace education experts note that peace is not simply "the absence of war" rather a space in which fundamental human needs met with care and consistency (Brantmeier, 2011, 2013; Cajete, 2010; Harris & Morrison, 2013; Noddings 1894, 2011, 2013)

## Methodology

### Study Design

Qualitative, illustrative case design (Creswell, 2014)

Photovoice methodology (Greene, Burke, & McKenna, 2013; Wang, 1999; Wang & Burris, 1997;)

Youth Participatory Action Research (YPAR) (Cammarata & Fine, 2008)

Embedded proposition/inductive process  
*Sample*

Purposeful sample/singular site: *Private, independent, accredited American PK-8 school; inclusive environment*

15 years in operation

Multiple Program Analysis:

*On and off site farm school  
School nutrition program  
Summer Farm Camp  
Adolescent Micro-economy*

### Data Collection

Asset based, community oriented data collection in accordance with school mission & Photovoice method

Participant observation, informal interviews

Photography and artifact analysis

### Data Analysis

Thematic coding; Photo Analysis  
Bias explication

*Our guides regularly remind us that the most important part of our curriculum and, really, education is the farm. It's the basis for so many other things. How else can you learn to appreciate the world's resources, especially water, the way we should? - Student, Age 13*



*Montessori's vision of an Erdkinder adolescent program is essential on many levels.*

*Integrating the work of the mind with actions of the hand creates a balance that cannot be achieved by simply sitting at a desk, or reading from a book. All that we are...or ever will be, or ever were before...has come from--and will return to--the land. - Adolescent Guide*

## Discussion

Findings based on the photographs, participant observation, informal interviews, and artifact analysis indicate:

Nature based play, work, and exploration allow youth at all stages to develop essential physical and cognitive skills but also invaluable relational skills.

Multi-age, multi-year, spiraling curriculum designs with diverse opportunities for all types of learners are possible in land based learning programs.

Preparation of the environment, even outdoor environments, is fundamental to successful place based education.

Guiding and observing youth remains a central focus in place based sustainability education.

Ample opportunity for risk taking and independence are essential components of place based learning environments.

Relationships with community partners and environmental education experts are ideal. However, all educators are capable of engaging in land based learning practices.

Outcomes can include leadership skills, discrete knowledge, empathy, care for the environment, sustained engagement in environmental stewardship. and an understanding of the global gestalt.



*I like farm for the pigs and the manure. When it gets dry it's super fun to jump in. I also like the baby goats. – Student, Age 7*

## Conclusion

Environmental stewardship and sustainability education via experiential learning provides the opportunity for Maria Montessori's vision of "cosmic education" to come to life. In this model, sustainability and social innovation are not "extras" rather they are part of the child's understanding of their role in the whole of humanity.

Montessori practitioners are in ideal settings to embrace this work and share the teachings of Maria Montessori.

Educators, youth workers, and caregivers in non-Montessori environments, especially those working with adolescents could benefit from engaging with Montessori communities and practitioners.

Further research in this arena is warranted, especially program evaluation and outcome based studies.

Inquires can be directed to: Maria McKenna at [mmckenn9@nd.edu](mailto:mmckenn9@nd.edu)

