



CERD Green Chronicles

ENVIRONMENTAL EDUCATION NEEDS TO BE MORE INTERACTIVE

Chaitanya Suraj Mamidi

Ashoka University, Sonapat, Haryana, 131029.

chaitusuraj@gmail.com

To maintain sustainability in our education, I believe in everyday goals. The visitors visiting our park are divergent day-to-day, so drawing them towards our long term visions improve public awareness and inherited respect for the environment amongst our society. As environmental educators, we all are working towards the wellness of our planet standing on different environmental platforms, the ultimate goal at the end of the day remains the same, "Conservation through Sustainable Education". While a naïve hypothesis would be that formal environmental education would influence a person to lead an eco-friendly lifestyle, there is no reliable research that proves that proves the statistical significance of formal environmental education as a treatment variable. A recent research paper I wrote as part of a course on field methods I was doing in college, seeks to understand the relation between interaction with nature and the eco-friendliness of one's lifestyle. As an additional component, I included the level of formal education in a subject related to the environment. A study I conducted to write this research paper yielded some interesting results. In this short essay I will outline the results of this study and describe their implication on environmental education.

My null hypothesis was that the amount of interaction with nature will not have an effect on how much effort a student puts into making their lifestyle environmentally friendly, and my alternate hypothesis was that the amount of interaction with nature will have a positive effect on how much effort a student puts into making their lifestyle environmentally friendly. By analyzing the data collected from the online survey using a linear regression as well as Spearman's rank correlation analysis, I was able to disprove my null hypothesis and prove my alternate hypothesis true. This means that a person who interacts with nature more leads a more eco-friendly lifestyle. These results were also backed by my qualitative interviews. All five of the candidates I interviewed responded that their interactions with nature shaped their attitude towards the environment, which further led to lifestyle changes.

The study consisted of a quantitative and qualitative component. The former was done through data collected from an online survey in which 150 students from colleges and universities across India participated. This survey consisted of 20 questions, to gauge the amount of time a student spends in activities involving interaction with nature (such as ecotourism, birdwatching, gardening, etc.), to assess how eco-friendly their lifestyle is (in terms of carbon footprint, waste management, conscious consumption, etc.), and to gain some information about their education. The qualitative part was done through open-ended interviews with 5 students who frequently engage in activities involving interaction with nature.

An additional observation I made through this study was the relation between formal education related to the environment and eco-friendliness. Through a linear regression analysis, I found that there is no significant causal relationship between the level of formal environmental education and the eco-friendliness of one's lifestyle. A closer look into the results made me realize that formal environmental education made a difference in one's lifestyle only if they pursued an undergraduate, graduate or a higher degree in a field related to the environment, not to mention that such degrees might involve significant interaction with the environment in the form of fieldwork. This means that school-level and college-level environmental education mandated by the government does not seem to make a difference in the eco-friendliness of a person's lifestyle. This is a real indictment of the way the environment is taught in schools and colleges.

This brings me to the key recommendation I make in this essay: environmental education needs to be made more interactive. Research suggests that interacting with nature improves cognitive abilities, and can also help with depression and stress. (Berman, et al., 2012) Interaction with nature has also proved to be helpful in raising one's morale and self-esteem. (Keniger, et al., 2013) A meta-analysis by Capaldi, et al. (2014) suggests that people who are more connected to nature tend to be happier. A study by Hosaka et al. (2017) suggests that childhood nature experiences have a vital role in shaping affective attitudes towards various types of wild animals. Experiences in nature are positively associated with stronger pro-environmentalism, such as emotional affinity toward nature (Kals, et al. 1999), willingness to conserve biodiversity (Soga and Gaston, 2016), willingness to pay for the conservation of urban green spaces (Lo and Jim, 2010), and pro-environmental attitude. Barton, et al. (2016) found an increase in adolescents' connectedness to nature after a wilderness expedition. Evans, et al. (2018) conducted a longitudinal study in which they found, that one of the main predictors of young adults' environmental attitude was time spent outdoors during childhood. Overall, existing literature suggests that there is a positive relation between interactions and experiences in nature, and pro-environmental

Adding on to existing literature, the results of my study suggest not only that interaction with nature influences people to lead a eco-friendlier lifestyle, but also that the way environment is taught in schools needs to be changed. The primary reason behind the introduction of mandatory classes on environment in schools and colleges was to instill environmental consciousness among students, who are the future of this country, but the desired results are not being achieved. While there are larger forces at play, such the state and the economy, individual awareness and participation does play an important role in conserving the environment, especially in a democracy like India. Almost every act of a human has some impact on the environment. Training our students to be conscious of this impact is crucial to sustain any effort to conserve the environment. Making environmental education more interactive would help improve students' environmental consciousness and can also help in their personality development.

References:

- Berman MG, Kross E, Krpan KM, et al. Interacting with nature improves cognition and affect for individuals with depression. *J Affect Disord.* 2012;140(3):300-305. doi:10.1016/j.jad.2012.03.012
- Capaldi, C. A., Dopko, R. L., & Zelenski, J. M. (2014). The relationship between nature connectedness and happiness: a meta-analysis. *Frontiers in Psychology*. Retrieved from <https://doi.org/10.3389/fpsyg.2014.00976>
- Hosaka, T., Sugimoto, K., & Numata, S. (2017). Childhood experience of nature influences the willingness to coexist with biodiversity in cities. *Palgrave Communications*, 3(17071). Retrieved from <https://www.nature.com/articles/palcomms201771#rightslink>
- Kals, E., Schumacher, D., & Montada, L. (1999). Emotional Affinity toward Nature as a Motivational Basis to Protect Nature. *Frontiers in Psychology*, 31(2), 178–202. doi: <https://doi.org/10.1177/00139169921972056>
- Keniger, L. E., Gaston, K. J., Irvine, K. N., & Fuller, R. A. (2013). What are the benefits of interacting with nature? *International Journal of Environmental Research and Public Health*, 10(3), 913–935. Retrieved