
BMF Collaborative Project 23: The roles of school and family in building the eco-surplus culture among students

AISDL Team

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1. Project description

1.1. Main objectives

The current study has four objectives:

- Examine whether access to information related to environmental issues (e.g., climate change, environmental pollution, and energy) can help improve students' awareness of environmental issues
- Examine whether access to information related to environmental issues (e.g., climate change, environmental pollution, and energy) can help improve students' willingness to participate in activities protecting the environment and saving resources
- Examine whether students' awareness of environmental issues can improve their likelihood of conducting eco-surplus behaviors
- Examine whether the association between environmental awareness and eco-surplus behavior is conditional on the willingness to participate in activities protecting the environment and saving resources.

1.2. Materials

The mindsponge theory will be used for conceptual development, and Bayesian Mindsponge Framework (BMF) analytics will be used for statistical analysis on a dataset of 2069 students in Vietnamese primary, secondary, and high schools [1-3]. The bayesvl R package, aided by the Markov chain Monte Carlo (MCMC) algorithm, will be employed for statistical analyses [4-7]. All the materials and code for this study will be made available only to reduce the cost of doing science and transparency [8,9]. For more information on BMF analytics, portal users can refer to the following book [10]. Data and code snippets of this initial analysis were deposited at: <https://osf.io/av5fp/>.

1.3. Main findings

The findings show that discussions with parents about environmental issues and learning information related to environmental issues at school are positively associated with environmental awareness and the willingness to act (see Figure 1). However, the effect of discussion with parents about environmental issues on environmental awareness is greater than that of learning about environmental issues at school, and vice versa for the willingness to act.

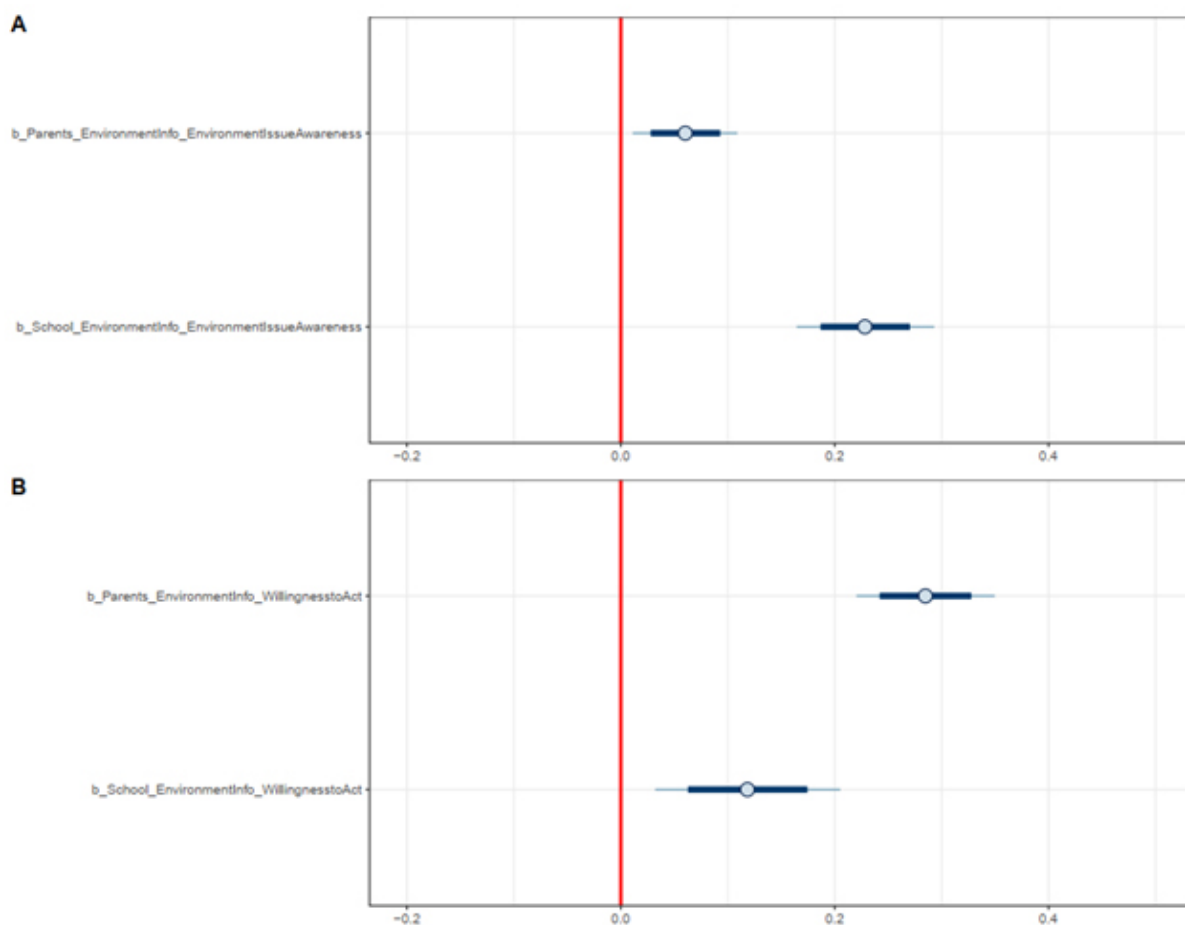


Figure 1. Posterior distributions of the first analytical model's coefficients.

We also found that environmental awareness positively affects eco-surplus behavior among students willing to participate in activities protecting the environment and saving resources. For students not willing to participate in activities protecting the environment and saving resources, environmental awareness has a negative effect on eco-surplus behavior.

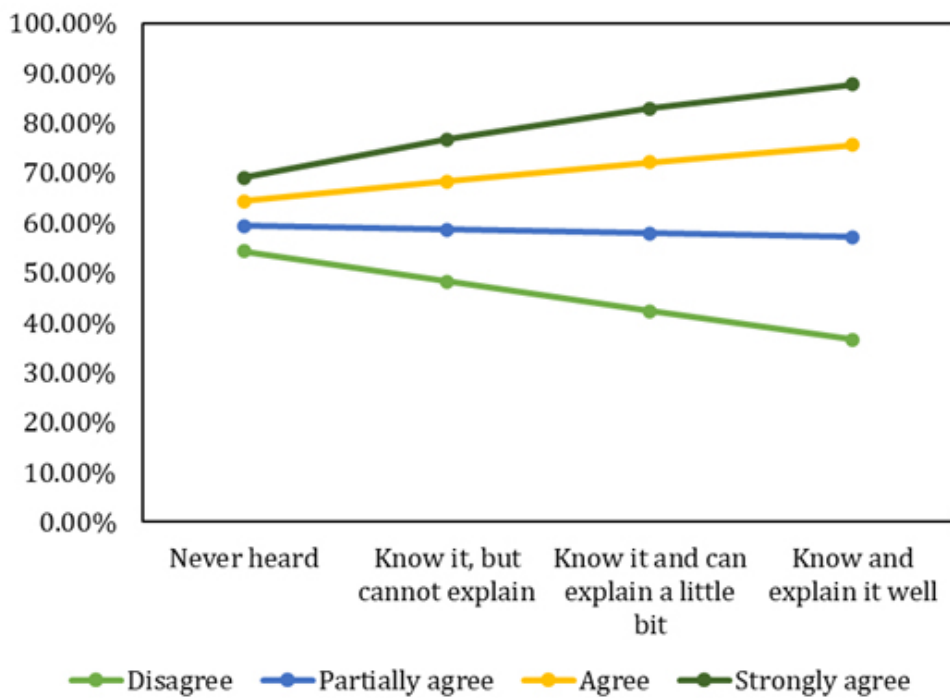


Figure 2. Probability of participating in activities protecting the environment and saving resources

2. Collaboration procedure

Portal users should follow these steps to register to participate in this research project:

- Create an account on the website (preferably using an institution's email).
- Comment your name, affiliation, and your desired role (e.g., literature review, method and material description, result presentation, discussion, etc.) in the project below this post.
- Patiently wait for the formal agreement on the project from the AISDL mentor.

If you have further inquiries, please contact us at aisdl_team@mindsponge.info.

If you have been invited to join the project by an AISDL member, you are still encouraged to follow the above formal steps.

All the resources for conducting and writing the research manuscript will be distributed upon project participation.

AISDL mentor for this project: **Minh-Hoang Nguyen**.

AISDL members who have joined this project: Tam-Tri Le and Quan-Hoang Vuong.

The research project strictly adheres to scientific integrity standards, including authorship rights and obligations. We look forward to working with participants on this research project.

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