# Cross Validation of the Environmental Attitudes Inventory: Plans to Assess Attitudinal Changes in Workers at a Shelter Farm in a Food Desert

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## Introduction

Within the context of an ongoing participatory community action research project that implements behavioral activation in homeless shelters, an urban farm was implemented. *Behavioral activation provides opportunities to engage in productive activities that yield response-contingent reinforcement, which increases productive behavior and leads to improvements in a sense of mastery, quality of life, mood, and cognition.*

The Project represents a collaboration between Dr. Roger N. Reeb (Professor of Psychology) and St. Vincent de Paul. Among our many community partners, we developed a collaboration with The Ohio State University Agricultural Extension of Montgomery County in 2017 to establish an urban farm on the grounds of the Homeless Shelter for Men in a food desert. We harvested nearly a ton of produce each of the first two seasons to enhance nutrition of shelter residents.

## Research Objective

Past research shows that farming activities can have therapeutic benefits.[1] In our program of research, a recent study showed that, as residents volunteered to work alongside students to assist with the shelter farm, they showed decreases in state anxiety.[2]

At this point in our research, we are in the process of examining changes in environmental attitudes of service-learning students who work on the farm. The Environmental Attitudes Inventory (EAI) has "the potential to become the gold standard" (p. ) for assessing environmental attitudes.[3] The EAI is multidimensional, including 120 items organized into 12 subscales (see Table 1).

However, the original EAI validation research included almost exclusively non-American participants, and subsequent studies using the EAI with Americans used short versions of the EAI and did not report details of psychometric properties. Therefore, cross-validation research on the EAI is necessary in order to determine if it is appropriate for assessing UD service learning students.

## Methodology

### Study 1: Reliability Study of the EAI
- 34 undergraduates (20 males, 14 females) completed the EAI at pre- and post-semester

### Study 2: Factor Analysis of the EAI
- 326 undergraduate students (111 males, 215 females) completed the EAI

## Preliminary Results

### Study 1: Reliability Study of the EAI
Replicating original research,[3] we found that the EAI had strong (a) internal consistency and (b) temporal consistency (pre- to post-semester).

### Study 2: Factor Analysis of the EAI
We replicated original research[3] in identifying a 12-factor solution for the EAI, with satisfactory indices.

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## Conclusion

At this point, we are examining the extent to which the 12 factors identified in our research directly correspond with the 12 factors from the original research. Further, there are some discrepancies in item loadings between our research and original research, which we are exploring. Despite this additional work, the preliminary results suggest that the EAI may serve our purpose.