

TRANSFORMING & TRANSFORMATIVE ETHICS³

ROLF BOUMA, PROGRAM IN THE ENVIRONMENT

MELODY PUGH, ENGLISH AND EDUCATION

Description and Methodology

Environmental Ethics: Living Well in Nature (Envron 376) is an interdisciplinary class offered each winter term in the Program in the Environment (PitE).

Concerned that class size and structure restricted development of students' ethical reasoning because of limited opportunities for verbal or written articulation of ethical content and reasoning, the project proposed to convert Env376 to a course satisfying Upper Level Writing Requirements (ULWR). This entailed:

- Developing five writing projects, of which three required submission of a polished draft and subsequent revisions in response to instructional feedback;
- Designing a course website (env376.lsa.umich.edu/WP) using WordPress to provide writing resources and to allow monitored interaction and feedback;
- Developing a rubric to measure ecological literacy and ethical reasoning for environmental ethics;
- Evaluating current year writing submissions in comparison with submissions from the past two years to assess qualitative differences;
- Developing a Defining Issues Test (DIT)² for ethical reasoning to be administered at the beginning and the end of the semester.

Research Question

How does students' ethical comprehension and reasoning change -- in both content and perspective -- as a result of intensive writing and an orientation toward future sustainability through ethical problem-solving?

Preliminary Results

| | 2011 | 2012 | 2013 |
|--------------|------|------|------|
| %Superficial | 33 | 25 | 9 |
| %Objective | 67 | 75 | 91 |
| %Invested | 0 | 18 | 27 |

Since data was accumulated over the course of the 2013 Winter Term, data is still being analyzed. A preliminary analysis of data shows a movement from Superficial to Objective understanding of an environmental issue, as well as a slight trend toward a more invested educational outcome.

Rubric Used to Categorize Student Essays¹

| | Literacy Level | Characteristics of Written Discourse |
|--------------------|----------------|--|
| Superficial | Superficial | Little to no evidence of personal or cognitive connections; disconnected ideas showing no clear conceptual or affective understanding of the issue |
| | Subjective | Discloses personal (affective) connections (secondary) but does not necessarily demonstrate conceptual understanding |
| | S-Invested | Lacks conceptual understanding while manifesting primary personal commitment/investment in the issue |
| Objective | Objective | Demonstrates conceptual understanding but does not necessarily disclose personal connections/previous experience |
| | Authentic | Demonstrates and integrates conceptual understanding and personal connections and behaviors (secondary) relating to the issue in a way that demonstrates ecological literacy |
| | O-Invested | Demonstrates conceptual understanding and personal connections while manifesting a personal commitment to the issue. |

Further Investigation/Unintended Consequences

- Class size was 15-17% higher than in any of the previous three years. It is unclear whether this is an anomaly or is related to student need to complete ULWR requirements;
- The percentage of second semester seniors taking the course was higher than in two of the previous three years and may have affected writing outcomes;
- The number of students taking the course Pass/Fail increased significantly;
- The effect of assignment specifics and instructions on outcome classification should be assessed.

¹Adapted from Meena M. Balgopal, Alison M. Wallace & Steven Dahlberg (2012): Writing to learn ecology: a study of three populations of college students, *Environmental Education Research*, 18:1, 67-90.

²Rest, James; Narvaez, D., Bebeau, M. and Thoma, S. (1999). "A Neo-Kohlbergian Approach: The DIT and Schema Theory". *Educational Psychology Review* 11 (4): 291-324.

³Project underwritten by the Center for Research on Learning and Teaching's Investigating Student Learning Grant, 2012-13.