

AN EVALUATION OF THE PASSAIC RIVER INSTITUTE SUMMER PROGRAM

Gina M. Mongiello (Montclair State University, gmongiello@aim.com)
N.J. Smith-Sebasto, (Montclair State University, nicholas.smithsebasto@montclair.edu)

One of the goals for many environmental education programs is to help produce an environmentally literate citizenry who at a minimum will choose sustainable practices in daily living. Several researchers have noted that environmentally active adults recall childhood recreation in the outdoors and an environmentally active adult role model as the two defining factors that molded their environmental activism. Though there are many experiential-based programs offered to today's youth, most are not measuring the impacts of this exposure. With the use of reliable instruments, educators can begin to understand what programs and/or activities offer true gains in attitudes, values, predispositions, and behavior.

This poster provides the findings of an evaluation of a two-week experiential program on 7th and 8th grade Newark students' attitudes, knowledge, and perceptions of nature using both qualitative and quantitative methodologies. The treatment was a 10-day summer program offered by the Passaic River Institute that consisted of guided tours of local non human-dominated areas and public infrastructures, visits to various local waterways for water quality investigations, exposure to a college atmosphere, computer lab time enabling students to transfer field data to computer applications, guest speakers, and hands-on activities. The utilized instruments, all administered in pre- and post-test design, were the New Ecological Paradigm (NEP) Scale (Dunlap, Van Liere, Mertig, and Jones, 2000), the Environmental Trust (ET), Environmental Adaptation (EA), and Pastoralism (PA) subscales of the Children's Environmental Response Inventory (CERI) (Bunting and Cousins, 1983), local knowledge questions, and the minute and muddiest point paper. We collapsed the NEP, CERI, and knowledge question responses into appropriate groups and performed t-test analyses to determine the mean change, if any, after the treatment. The responses collected from the minute and muddiest point paper were analyzed borrowing methods from Grounded Theory (Glaser and Strauss, 1967).

The findings indicate that after the treatment students in both summer 1 (S1) and summer 2 (S2) sessions showed a statistically significant increase in pro-environment orientation (NEP Scale) (S1: $t = -3.91$, $p = 0.00$, S2: $t = -2.25$, $p = 0.03$). Students in S2 showed a statistically significant decrease in the psychometric properties tested for in the EA subscale indicating that after the treatment they were less likely to believe that humans have a right to adapt and dominate nature ($t = 5.51$, $p = 0.00$). Students in S1 and S2 showed a statistically significant increase in correctly answered local knowledge questions (S1 group 1: $t = -8.89$, $p = 0.00$; S1 group 2: $t = -4.88$, $p = 0.00$; S1 group 3: $t = -5.23$, $p = 0.00$; S2: $t = -18.17$, $p = 0.00$). The responses collected daily using the qualitative methodology indicated that students in S1 and S2 found organisms and/or nature to be the most meaningful thing learned. Students in S1 and S2 also found organisms and/or nature the thing about which they would most like to learn more. Finally, students in S1 found the human-made environment the thing that most confused them (this question was not asked in S2).

Though the findings of this study are not generalizable, they offer some implications on the ability of the PRI 2-week EE program to modify in a positive way student attitudes toward nature. It appears that students are very interested in organisms and nature and that learning about nature increases values, attitudes, perceptions, and predispositions toward it.