Conservation Education in Cape Verde

The country of Cape Verde is an archipelago west of Senegal and Mauritania. As a developing country in the Sahel region of Africa it is confronted with many environmental problems, including deforestation, lack of fresh water, desertification, illegal hunting, clearing of land for agriculture, invasive species, and soil erosion. These problems have a negative impact on Cape Verde’s endemic and endangered species. To help conserve these rare species and their ecosystems, a system of protected areas and parks was created. Serra Malagueta Natural Park (SMNP) is one of three parks in Cape Verde. It is located on Santiago Island, which has the largest population (approximately 236,000 inhabitants) of all the islands in Cape Verde. Therefore, the park provides an opportunity for a high percentage of Cape Verdeans to experience a forested ecosystem and learn about conservation, the environment, and their natural heritage. One of the park’s primary goals is environmental education. To facilitate this goal, the park offers guided tours and lectures covering park history, ecotourism, biodiversity, and conservation education. This is important, as most of the park’s visitors are students throughout Santiago Island. Approximately 3000 students visited the park in 2010. These visits provide students the opportunity to learn about the environmental problems and challenges that are currently affecting Cape Verde and ways that they can help to combat these problems. By having students participate in the conservation education program, the park has the potential of increasing knowledge and creating positive attitudes and behaviors towards conservation. Because the park’s conservation education program has potential to reach a large number of youth (and other visitors) it is important to know if the program is effective and successful in educating its audience.

For my thesis research I evaluated the park’s conservation education program. The evaluation consisted of giving students that visited the park (experimental group) a pre-test and at least one post-test (two if it was possible) that tested their conservation knowledge, attitudes, and behaviors. The students were given the pre-test when they arrived at the park. The post-tests were administered at the students’ school approximately one week and one month after their visit to the park. All 5th -12th grade school groups that visited the park were asked to participate in the study. Also, control groups consisting of students of similar
background who did not visit the park were given the same test. If time permitted the control groups were given the same test a second time approximately one month after they originally took the test. The control groups were selected from schools that were close to schools that visited the park, had classes at the same grade level, were of similar size, and had not visited the park during the school year. For every class that visited the park, a class at the closest school of the same grade was used as part of the control group, or a different class of the same grade at the same school was used. Many of the school groups that visited the park came at the end of the school year, and I was not able to give them the second post-test because of scheduling conflicts (exams or end of the school year). Also, I encountered the same problem with control groups, so most of them were not able to fill out a second test. I was not able to locate a control group for every experimental group because of limited time at the end of the school year.

The survey was pilot tested with several groups before it was finalized. However, after the first group visited the park several adjustments were made. All the questions are the same but two questions have different answer choices. All the attitude statements have the same meaning but some words were changed on two statements. None of the behavior statements were modified. The excel sheet is a combination of responses from the old test and the modified one.

The questionnaire created, examined students’ knowledge and attitudes towards SMNP and conservation. There were 4 multiple choice questions to test students understanding of endemic species, introduced species, why Serra Malagueta is a park, and soil erosion. Also, there were 4 species (plants and animals found in Cape Verde) listed and the students had to write if they are introduced, endemic, or invasive. The definition of biodiversity was given and students filled in the blank with the correct term. There were 12 attitude statements about the park and conservation in general, and 3 behavior statements. The students rated the attitude and behavior statements on a scale from 1-6 (strongly disagree to strongly agree). Comparing tests of students’ knowledge, attitudes, and behaviors before they participated in the conservation education program with the tests from after their participation will help the park to have an idea of the information students possess and their attitudes and behaviors when
they come to the park and what they are learning and retaining in short and medium terms. Comparing the experimental groups with the control groups will help demonstrate if the park program is impacting and educating the students or if changes in knowledge, attitudes, and behavior are coming from outside influences. Also, the park will learn what it is currently doing well and where improvements are needed. This information can be used to improve the park’s conservation education program.