

## **Contact**

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## **Question**

What impact will participation in an environmental service-learning project have on the knowledge, skills and dispositions of at-risk students in an alternative education center?

## **Problem**

Students at the School for Applied Technology have been identified as being at-risk by Miami-Dade County Public Schools. Traditionally, students in this school feel disconnected from both the schools and communities in which they live. This lack of connection frequently results in students' feeling a lack of responsibility for both the school and community. This results in students feeling little need to participate in either.

At-risk students also tend to have non-traditional learning styles, compounding their difficulties. With the recent emphasis on standardized testing and the "back to basics" approach, it is becoming increasingly difficult for students with non-traditional learning styles to find success. They see little correlation between what they are able to do, what they learn in school and the real world that they must learn to live in.

The challenge for these students is to create a learning environment that can reconnect them with school and community, while utilizing their learning strengths and highlighting direct connections between what they learn in school and the real world.

## **Plan of Action**

In order to address the specific characteristics of my at-risk students and to try and reconnect students with their own community and its many resources, I decided to implement an environmental service-learning project. Service learning also accommodates the various learning styles demonstrated by at-risk students while providing clear connections between the classroom and the world outside of school.

Additionally, I hoped to improve students' achievement, develop new skills and improve attitudes towards the environment.

## **Methodology**

Students were involved in the planning and implementation of an environmental service-learning project for the majority of the school year in 10<sup>th</sup> grade Biology class. The students were responsible for working to restore Virginia Key Beach while learning about the historical, environmental and ecological significance of the area. The project was woven into the course content was the primary mode of instruction for the students. Implementation of the project also involved utilization of and cooperation in numerous community resources including: Barry University, Florida International University, Metro-Dade Parks, Citizens for a Better South Florida, and the Miami-Children's Museum.

I used FCAT science scores as a basis for measuring improvement in classroom performance and student demonstration projects. Assessment of skill development was done by collecting information from teacher observations, student surveys and student use of new skills while at the park. Student dispositions were analyzed through the use of student reflections, student journal entries, an environmental survey, and teacher observation.

## **Results**

Substantial increases in student knowledge, skills and dispositions were seen as a result of participation in this project. Student gains on standardized test scores were in the top 5 of all high schools in the district, while demonstration projects showed an in-depth understanding of the science concepts addressed. The most significant changes, however, were in student attitudes towards school and the environment. Many students indicated that they had changed their attitudes towards the environment, as well as their behavior. Students frequently stated that they did not realize the impact that their behavior had on the environment and went on to change their own behavior after learning about its consequences.

## **Policy Implications**

Participation in service-learning projects should count towards the community service requirement for graduation.

Schools should actively encourage the development of service-learning projects in classes and schools.

State and district education policymaker should adopt a policy recognizing and encouraging the use of service-learning as a viable means of improving student achievement and developing higher order thinking skills.

Identify service-learning as a viable means by which to improve student achievement.