Connecting Communities at Lighthouse Point

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Background

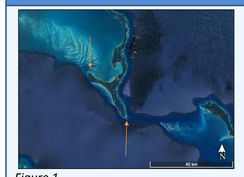


Figure 1.
The top arrow points to The Island School and the lower arrow points to Lighthouse Point.

The main objective of this project was to supplement the Bahamian National Curriculum with interdisciplinary and experiential learning. The venue we choose to employ these teachings was Lighthouse beach, a promontory located on the southern tip of Eleuthera.

Education in the Bahamas is typically taught in a traditional, lectured-based classroom. This project's goal was to create an experiential, interdisciplinary, and environmental field trip to match the benchmarks of the Bahamian National Curriculum. As a community ask, the group aimed to take as many South Eleutheran students to Lighthouse Point as possible. Historically, Lighthouse was an entry point for enslaved peoples brought to the Bahamas from West Africa. Most of the inhabitants of this island can trace their lineage through Lighthouse. However, a Cruise Line's purchase of Lighthouse Point was recently approved by the Bahamian government, which may restrict local access to Lighthouse.

Figure 2.
Above, the tip of Lighthouse, the entry point for many enslaved peoples is shown.

CEIS Outreach

Figure 3.
An Island School student reads with a student from the Open Learning Center, an after-school program.

The Cape Eleuthera Island School's mission is: "*To create meaningful relationships through education and sustainability to advocate living well in a place.*" The Island School outreach program does this by responding to community asks. For example, Island School students this term went to Deep Creek Primary School to read with the students because it was asked for by the school. Additionally, our field trips to Lighthouse were a community ask and align with the benchmarks of the Bahamian National Curriculum.

Purpose

Figure 4.
An Island School Student teaches students from Tarpum Bay Primary School about pollution at Lighthouse Beach.

"To enrich the education of 5th and 6th grade Eleutheran students in a hands on, experiential way while developing their sense of place in a culturally rich piece of their community."

Learning Styles

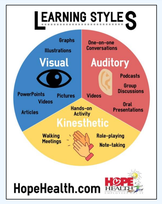


Figure 5.

Figure 5 shows the three main types of learning styles and the methods to teach these styles. We used this chart to create our lesson plans to teach at Lighthouse. While most classrooms mainly serve auditory learners, we designed our lessons to serve all learning styles.

Objectives

Figure 6.
A student from Deep Creek Primary School at Lighthouse Beach.

Figure 7.
The Island School students above are teaching a lesson at Lighthouse Beach to a group from Tarpum Bay Primary School.

1. **Using experiential learning**

Experiential learning is when students can see they are learning right in front of them. The purpose of this is to target all types of learning styles.

2. **Deepening sense of place**

Sense of place is one's connection to and understanding of the environment around them. The purpose of this is to learn about the significance of the place, which is not usually taught in classrooms.

3. **Applying Interdisciplinary learning**

Interdisciplinary learning is combining multiple subjects and teaching them together. In most classrooms, each subject is taught separately, however our lessons connect them together.

Methodology

Lessons:

1. Most of the Bahamian National Curriculum is taught in a classroom, so we used **environmental education** and ran field trips at Lighthouse Point to test our hypothesis.
2. During the field trips, we used **experiential learning, sense of place, and interdisciplinary learning** to teach the students about photosynthesis, the water cycle, and pollution. These three topics are all part of the Bahamian National Curriculum for grade 5.
3. Each lesson was built to serve all types of learners

Figure 8.
Students from Tarpum Bay Primary School performing a skit about photosynthesis.

The students participated in a skit about photosynthesis. This way, they were able to be a part of the **teaching process** as they were learning.

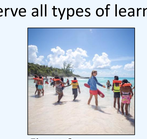


Figure 9.
Students from Tarpum Bay Primary School learning about the water cycle.

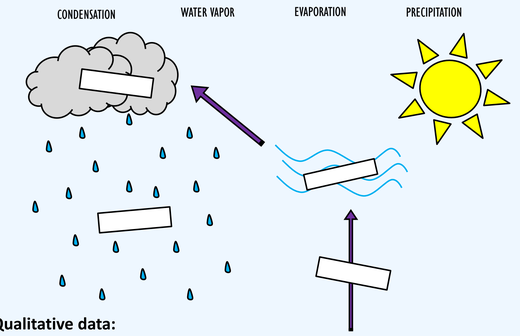
The students learned a song about the water cycle so that they could remember the steps clearly.

Figure 10.
Deep Creek Primary School Students learning about pollution.

The students found pollutants on the beach and recycled them in order to gain a deeper understanding between their everyday actions and the environment.

Data Collection

Quantitative data:
The quantitative data is in the form of identical written pre and post assessments given to the students directly before and after the three lessons. The assessments included questions from each of the three lessons. Below is the assessment for the water cycle:



Qualitative data:
The qualitative data is in the form of informal interviews to hear about the students' experience at Lighthouse Point. Below are a few of the students we interviewed:

Results

Grades	1-7
Students	54
Schools	Deep Creek and Tarpum Bay Primary Schools

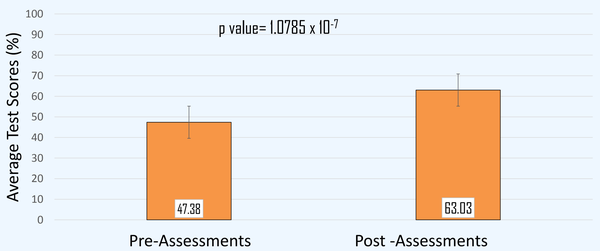


Figure 11.
Overall pre- assessment and post-assessment scores

This shows that the post- assessment scores were on average higher than the pre-assessment scores. The p-value, shown on the upper right hand corner, is statistically significant because it is less than 0.5. This shows that there is a real difference between our two data sets, and the improvement from the pre-assessments to the post-assessments is not due to chance.

Though the p-value was significant, the standard deviation also increased in the post assessment data set (the standard deviation of the pre-assessment scores was 28.3, while the standard deviation of the post assessment scores was 29.9).

Many external variables could have led to the difference between standard deviations of the pre/post-assessments. For example, not everyone is being impacted by the lesson in the same way because of different learning styles. The general room for error throughout our data includes the time given to complete the test, the difference of ages of the students, and different schools that the kids attended.

Discussion

Over multiple semesters, CEIS outreach will be creating a field guide, talking more deeply about the programming that we are doing. This will benefit other groups who may want to model this style of teaching.

Island school will be teaming up with the Bahamas National Trust to take this type of experiential programing national.

The types of trips that we have conducted are not specific to Lighthouse Point, though the environment was a large part of the specific lessons. This means that these trips could be conducted at other sites in the future to accommodate different subject matters or if trips to Lighthouse are not able to occur due to access.

The government has approved the purchase of Lighthouse to a cruise line company, so the next step is to conduct an environmental impact assessment to acquire permitting. If the construction of the cruise port goes through, the future of the access to the beaches and the of our ability to take field trips to Lighthouse Point would be unknown. However, we will continue to run trips until our access is cut off.

Acknowledgements

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Figure 12.
The photo above shows the Tarpum Bay Primary School students, The Island School students, and the Lighthouse Research group advisors at Lighthouse Beach.

Literature Cited

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