Program 1 Year 1 Student Baseline Assessment

Feb 2024

# Overview

This baseline assessment of the Program 1 students seeks to compare the Program 1 participants to Program 2 participants regarding their level of knowledge on coastal environments and restoration needs and activities. This comparison is exploratory in nature as there are not enough participants for this comparison to be statistically significant. The surveys were administered using Survey Monkey in February 2024. The Program 1 program began in Fall 2023 and will continue through Spring 2025, with a pre and post survey for Year 1 and Year 2, and a summative report at the end of Year 2.

All the Program 1 survey respondents gave the program 5 out of 5 stars and expressed much excitement and gratitude for the program, as they said in their own words:

* I feel as Program 1 should get more recognition for what it has done not only for its participants, but also for our coast/shorelines.
* I love being apart of this program and I’ll never forget it.
* It's very great and I'm glad I have the opportunity to participate in something like this
* I LOVE YOUR SHORES
* Absolutely love it! Best experience ever!

# Survey Respondents

26 total surveys were a part of this analysis with 6 out of 7 (86%) Program 1 participants who responded and 20 out of 40 Program 2 participants who responded to the survey. The Table below describes the survey questions that were administered to each group of students.

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| --- | --- | --- | --- |
| Survey Section | Summary of Questions | Program 1 | Program 2 |
| Program Satisfaction and Feedback | Rating and feedback of experience thus far and factors/obstacles that influenced their choice to sign up. | X |  |
| Learning and Knowledge | Rating of personal knowledge related to coastal habitats, their threats, and current actions being taken to preserve the habitats. | X | X |
| Social Impact and Empowerment | These questions are the Climate Change Hope Scale with minor adaptations described below. The tool assesses three factors related to climate change: Personal-spere will and way (PS), Collective-sphere will and way (CS), Lack of will and way (LW). This section ends with four additional questions related to recent coastal restoration activities that the participants have done recently. | X | X |
| Influence on Future Plans | Two questions regarding the influence of the program on the respondent’s professional plans. | X | X |

Program Satisfaction and Feedback

The survey of Program 1 program participants revealed a clear preference for engaging in hands-on coastal restoration activities, with 83% citing this as their primary reason for enrolling. The second most common motivator, mentioned by 66.67% of respondents, was the opportunity to obtain SCUBA certification alongside gaining knowledge on coastal restoration. A stipend attracted 33% of the participants.

Furthermore, when considering different environments for their work, all respondents expressed a particular interest in coral reefs over beach dunes and mangrove coasts. They also unanimously found the program's structure, which includes one classroom day followed by three field days, to be effective.

However, challenges have emerged, notably in logistics and commitment. Half of the participants identified transportation to the project sites as a significant barrier, while one-third reported difficulties with the time commitment required, obtaining SCUBA certification, and passing the swimming test.

When asked to describe their favorite parts of the Program 1 program, students shared about the joys of being with their friends, learning SCUBA diving, and overall learning more about the big unknown ocean. In their own words, respondents shared:

* My favorite part of the program is that I get to help out the environment and hang out with my friends.
* Getting the scuba certification, because every career path I have considered in the Marine area would require a scuba certification.
* The scuba diving, because it was fun
* My favorite part was to get to know a big part of Earth that we know so little of. Diving in the sea with other types of life and observing the effect of human activity with my own eyes made me realize how powerful nature is and how insignificant humans are. My favorite part was the opportunity to adopt a new perspective about nature and the effects of the meré existence of humans. My favorite part was gaining immense respect for marine wildlife and leveling myself with them to feel a balance in nature.
* As much as I understand we need classroom days, diving and work days are my favorite because of the interactive and hands-on experiences I am exposed to.
* Swimming because I love the ocean

When asked for feedback on how to improve the program, respondents shared that it would help to have known about the sites and program dates and times prior to singing up, include more bonding activities between the participants and staff, and more project working time. In their own words, respondents shared:

* I think your shores should implement more “bonding” activities in the beginning of the program to actually create a team. I also the think that the classroom time at [program site] could be used more effectively to learn about the scientific part of coastal restoration regarding dunes, mangroves, and coral reefs. In my case, the games and the short powerpoint did not work as much as I expected. I would also implement more time on the projects and the research we may require. Everything is else is just amazing!
* I would have loved to watch maybe like a movie or documental in one of the days at [program site] to create that first impression of sympathy for life and earth. I would have also loved to see professionals in the area to give talks to us so we can have a solid informational background.
* I think in the future it should be made aware beforehand about the locations and times we will be going to, because one of our your shores participants had to withdraw because he couldn't make it to the locations, and we now have 1 less participant.
* It would be better to have more people involved because more people would learn and also help out.
* More diving days
* I think being able to dive more would enhance my experience in the program.

Learning and Knowledge

A graph of different colored bars

Description automatically generated with medium confidenceAt baseline, the Program 1 respondents rate themselves higher than the Program 2 respondents regarding their level of knowledge and understanding about coastal environments and their threats with Program 1 respondents averaging 3.43 and Program 2 3.26. There were two questions for which the Program 2 respondents rated themselves higher than the Program 1 participants, regarding trash and pollution management and the social and economic aspects of coastal restoration.

Social Impact and Empowerment

This portion of the survey is taken from the Climate Change Hope scale for High School Students[[1]](#footnote-1)survey tool was developed to assess high school students’ hope about climate change. The tool was shown to be reliable and valid when used with US high school students. The tool assesses three factors related to climate change: Personal-spere will and way (PS), Collective-sphere will and way (CS), Lack of will and way (LW). For use in this context, we can make minor changes as suggested below to make the questions specific to coastal restoration instead of climate change and global warming. Questions in the Lack of will and way factor are reverse scored.

In the three factors, the Program 1 respondents scored an average of .6 points higher than the Program 2 respondents. And Program 1 participants had the highest Personal-sphere Will and Way, which shows that they have faith in themselves to make a difference.

A graph of a graph with blue and green bars

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The last four questions of this section were generated specifically for this project and intend to provide clarity of what the respondents are already doing with their knowledge. Each of the question’s data further emphasize the Program 1 respondent’s strong interest in coastal restoration. The Program 1 respondents participated in an average of 2.83 activities per person compared to the Program 2 respondents who engaged in an average of 1.55 activities per person.

Again, the Program 1 respondents tend to share more than then Program 2 respondents, with Program 1 sharing in an average of 1.5 ways and the Program 2 respondents sharing in an average of .8 ways per respondent.

All the Program 1 respondents felt equipped with skills and knowledge to actively contribute to coastal restoration efforts, however only 25% of Program 2 respondents said yes, and 75% said maybe.

All of the Program 1 respondents are willing to engage in future environmental conversation projects, however, only 40% of Program 2 participants, and 55% of Program 2 respondents reported that it depends, and 5% said they would not be willing to engage in future projects.

In their own words, respondents shared how they think the issues they have learned about may impact their local communities:

* They affect my local community because it could help it persevere through natural disasters.
* I think these issues are making the beaches, oceans, and parks of Florida not as beautiful as they were and should be, as well as contributing to the disruption of the environment and it's animals.
* It raises awareness to those issues
* Since Florida is composed of flat surface, mangroves are the ones protecting it from the harsh ocean currents which are way too close to urbanization. Also, dunes are necessary to prevent erosion and sustain the native wildlife of Florida, and with out it, Florida may experience the consequences of an imbalanced cycle. Corals are the ones protecting marine animals, the ocean bottom, and creating the division between safe sea available for human use and the complex ecosystem beyond it. So, without corals Floridian coast will loose diversity in native animals, warm the oceans to an unsustainable level, and prevent Floridians to use the beaches in a safe and conscious manner.
* When I bring awareness to the topics I’ve learned to my community they see it in a new light after briefly being educated about it.
* It may cause flooding

Influence on Future Plans

The Program 1 respondents indicated that the program had a higher positive impact on their career plans compared to the Program 2 program.

Additionally, 66% of the Program 1 respondents indicated that their participation in the program has made them more interested in environmental science or sustainability, compared to 15% of the Program 2 respondents.

When asked to describe how the Program 1 or Program 2 programs have impacted their plans for their futures, students in both programs expressed significant impact on their thoughts. Specifically, the Program 1 students express strong appeal for environmental conservation and SCUBA diving. In their own words, the Program 1 students shared:

* I’d like to help out more in the future. Id join a group of people who also want to help the planet.
* I have always wanted to do something related to the ocean and it's ecosystems. I have also always cared about how there are careless people destroying the environments, and have wanted to try to help. The your shores program has provided me with a scuba certification that I can potentially use to do more activities like this in the future, as well as familiarized me with the actions of helping the environment, better equipping me for doing more things like this in the future.
* Program 1 has definitely left me with a passion for scuba diving and i will love to take that into future consideration.
* My main passion is astronomy, but now I want to introduce sustainability into my field. Also, I now want to minor in Environmental Sciences.
* Since I joined Program 2, I was able to unlock a part of me I did know was there, my love for the ocean. Now, for my future, I would like to pursue my passion and join the U.S Navy.
* Go to college

The Program 2 students shared about the major influence the program has had on their decisions for after high school. Specifically, students shared about their varied interests for future professions, but a common theme was their concern for the environment and how they impact nature. In their own words, respondents shared:

* My future plans are to become a veterinarian and I think the Program 2 program has helped me see more things from a different perspective when it comes to marine animals.
* Program 2 has greatly expand my impact about the ocean and things that are harmful to the ocean I never known about
* I want to be a mechanic, I think Program 2 has inspired me to think about how i can reduce carbon emissions
* I may participate in helping marine life In the future has a hobby or once in a while thing but I probably won't work in a marine field.

Closing Comments

This baseline assessment report underscores the strong interest that Program 1 participants have in coastal restoration and the early yet significant impact of the Program 1 program compared to the experiences of Upward Bound Math and Science (Program 2) participants. The participants had overwhelming positive feedback about the Program 1 program, with a particular enjoyment in coastal environments doing restoration activities. Despite the preliminary nature of this comparison due to a limited participant size, the enthusiasm and positive feedback from Program 1 participants highlight the program's effectiveness in engaging students with hands-on coastal restoration activities and enriching their understanding of marine ecosystems.

The data indicates a promising trend: Program 1 participants not only exhibit a stronger commitment to environmental conservation and knowledge acquisition than their Program 2 counterparts but also show a higher willingness to engage in future conservation projects. This distinction is further emphasized by the specific interest Program 1 students have shown towards environmental science and sustainability, as well as the positive impact on their career plans and perspectives on environmental issues.

As the Program 1 program continues, with further data collection and analysis planned through Spring 2025, it will be critical to monitor these trends and assess the long-term influence on participants' educational paths and environmental stewardship. The feedback and suggestions provided by participants offer valuable insights for program improvement and expansion, promising to enhance the program's efficacy in fostering informed, empowered, and proactive environmental advocates.

1. Li, C. & Monroe, M., (2017). Development and Validation of the Climate Change Hope Scale for High School Students. *Environmental and Behavior.* DOI: 10.1177/0013916517708325 [↑](#footnote-ref-1)