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## A Program Evaluation of Outside Las Vegas' YMCA Education Program

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A Program Evaluation of Outside Las Vegas' YMCA Education Program

By

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## Executive Summary

Today, more than ever, society needs high-quality environmental education programs that succeed in moving values and changing behaviors in the direction of sustainability and conservation. The most common definition of outdoor education comes from "education in, about, and for the outdoors" (Donaldson and Donaldson, 1958, p. 63). They described outdoor learning as taking place “in” the outdoors and the subject matter being “about” nature or the outdoors. There are a variety of studies about “outdoor learning” with a large variation of topics, activities, settings and channels of delivery. The research discussed in this paper will vary slightly to demonstrate the different aspects of outside learning as it relates to Outside Las Vegas Foundation’s mission and programming. YMCA location being used in this evaluation may use this information to determine the level of community connectedness in civic engagement and volunteer rates, especially in poorly developed areas of Las Vegas.

The Outside Las Vegas Foundation (OLVF) partnered up with UNLV’s MPA (Masters in Public Administration) students to conduct a program evaluation of their YMCA Education Program. OLVF has a variety of outdoor education programs (more than 10); the reason why Team B.A.R.K chose this program was because of the unique layout that could show potential funder the capacity OLVF can bring to the community. Team B.A.R.K also felt that this program met all concern that OLVF has towards the Las Vegas Community: lack of science proficiency, lack of diversity, and lack of community connectedness (See *Appendix A-2: Outside Las Vegas Logic Model Summary*). The purpose of this evaluation is to determine the efficacy of their informal programming performance measures and data analytics for grant funding and effectiveness through their logic model. Aaron Leifheit, the OLVF Education Program Direction,

and Cheresa Tiang, Americorp Volunteer, will help Team B.A.R.K. (UNLV's MPA students) in providing information about the program and administering pre- and post- surveys to their participants and their parents, and in return, Team B.A.R.K. will perform a data analysis to determine if the program curriculum and subsequent field trips show an improvement in student learning about the outdoors. A literature review was written and researched to determine the effects of outdoor learning opportunities and experiences and how it relates to STEM (Science, Technology, Engineering, and Mathematics) learning in other outdoor education programs besides OLVF to provide additional information about the importance of outdoor education. In addition, a benchmark study was conducted to confirm the theories and ideas presented in the literature review by actually interviewing and provide a more in-depth research in organizations that conduct outdoor education programs around the nation. The benchmark study was used in a comparative analysis with Outside Las Vegas to help with our final recommendations for the program. Through Team B.A.R.K and Outside Las Vegas' collaboration on this project, the way outdoor education is conducted in the Las Vegas valley can be evolved in a way to improve how children connect with the outdoors.

## Introduction

### About Outside Las Vegas

The Outside Las Vegas Foundation (OLVF) is a non-profit organization that works on connecting the Southern Nevada community to special outdoor places. They achieve this through education, regional and community outreach, and volunteerism. OLVF's mission reflects their

vision, which is to enjoy, value, and protect these areas by focusing on health and wellness, economic development, education, community engagement, and protecting outdoor resources. OLVF has an aspiration to not only serve the local community, but to make the outdoors a more meaningful, accessible, and significant part of everyone's life. OLVF reaches to children and their families, primarily from low-income communities across the Las Vegas Valley through collaborates with youth-focused and community-based organizations.

### Collaboration with UNLV

The Outside Las Vegas Foundation teamed up with students from the Master of Public Administration program at the University of Nevada, Las Vegas to perform a program evaluation on one of their many education programs. (See Appendix A for Outside Las Vegas' Logic Model and List of Programs). Through this evaluation, OLVF can better understand the top three community needs that they want to help support:

1. **Lack of Science Proficiency:** "Southern Nevada as a region is failing in education, with a ranking of 50 out of 50 states. Only 50% of CCSD students were ranked as proficient in science in 2011, a development that the Brookings Institute reports has negative consequences for the local economy, as an insufficient number of Nevadans possess Science, Technology, Engineering, and Mathematics (STEM) skills."
2. **Lack of Diversity in Science Programs and Careers:** "Despite possessing more cultural diversity than average American cities; minorities, women, and at risk audiences are underrepresented in science programs, science careers, and visitation to public lands and National Parks."



3. **Lack of Community Connectedness:** “Southern Nevada as a region possesses lower civic engagement and volunteer rates, higher levels of obesity, poorly developed public transportation options, and more resident transiency than other similar urban areas.”

*Source: Appendix A-2: Outside Las Vegas Logic Model Summary*

The Outside Las Vegas Foundation’s Educational programs incorporates informal education programs with field trips to include STEM-related topics. In 2014, OLVF received private funding that allowed 27 field trips for 1,278 people and over 150 programs that reached over 19,000 people (Outside Las Vegas Foundation Program and Proposal Summary, 2). OLVF receives private and public funding from various organization to strengthen their program, and still currently seeks out benefits from potential funders to match public dollars. From this program evaluation, Outside Las Vegas can use the information to apply for grant funding to further expand and develop not only this program, but their other programs and evolve and grow as a non-profit.

### About Informal Programming: YMCA

Outside Las Vegas partner’s with local YMCA’s and local parks to provide classroom programs and field trips. These program are usually conducted in modules, usually 3-4 classroom programs followed by a related field trip. This program has been running for the last two years; some data collection has been administered through pre- and post-surveys. OLVF’s goals for this program is to grow and expand to other YMCA’s (they are currently operating this program at 4 YMCA locations) and garner funding through grants to help expand the program to more modules while understanding if their demographics are reaching their intended audience.

By evaluating the program effectiveness, tied to their current logic model, OLVF can conduct more programs related to STEM-related skills and activities.

The students at UNLV (Team B.A.R.K.) worked with Outside Las Vegas in evaluating the Informal Programming at the YMCA through a mixed methods analysis, providing recommendations for future or similar programs for the organization.

## Literature Review

Outside Las Vegas Foundation is dedicated to enriching children's lives and knowledge of the outdoors through outdoor instruction and learning opportunities. In addition, OLVF strives to promote a love of the outdoors and nature while fostering environmental stewardship.

Although there are not many similar programs in the Las Vegas Valley, the concept of "outdoor learning" has been around for several years in the United States as well as in other countries where various research studies and data analysis have been conducted to determine whether children benefit from learning about the environment or "outdoor learning" and whether those benefits are significant enough to make a profound impact on their lives and the communities where they live.

This review describes and summarizes the key findings from articles and research on outdoor learning. These were analyzed and compared to determine the effectiveness of the data and relevance to the mission of Outside Las Vegas. By demonstrating the factual benefits of the program and the need throughout the community, in particular to under-served populations, OLVF can become a stronger competitor for future funding cycles.

## Effects of Outdoor Education Programs for Children in California

The American Institute for Research conducted an evaluation in 2005 to measure the impacts of residential outdoor education programs for 255 at-risk, minority sixth graders from 4 Elementary Schools in California. This study not only focused on science learning, but social skills and environmental stewardship, all which have been identified by OLVF as outcomes for the participants in their programs. A logic model was used which identified the: Inputs, Activities/Strategies, Outputs, Expected Initial Results, Expected Intermediate Results and Expected Long-term Results. This model creates clear goals and intended outcomes at various stages of the program. The study used a “delayed treatment design” which focuses on both groups of students receiving the opportunity to experience the outdoor learning environment.

Week long programs were held consisting of hands-on inquiry based curriculum designed to help students understand the environment and the role of humans as participants in ecosystems, as well as develop their skills, attitudes, knowledge and commitment concerning the natural world. This week long program consisted of the following activities Monday – Friday: breakfast, morning “trail” involving science lessons/activities, lunch, afternoon “trail” additional lessons/activities, dinner and evening hikes. Instruction during the trials and evening hikes consisted of the following:

- Observing and identifying birds with binoculars and a field guide manual
- Searching for and identifying aquatic insects in a stream or pond
- Identifying species of trees and drawing conclusions on the “health” of the immediate forest,
- Hunting for wildlife clues such as animal tracks or scat

- Collecting mineral specimens and testing them for hardness, pH, and physical characteristics
- Looking for examples of natural recycling such as decomposing log, a fungus or an animal serving as a decomposer

Data was collected for this study in the forms of surveys to students, parents and teachers in 3 different intervals of the program, a pre-survey, post-survey and second post-survey six to ten weeks after the end of the program. In addition to the surveys research staff conducted site visits and interviews during the programs for each of the groups of participants. The student surveys collected information in 3 different methods 1) on an 11 point scale (0 strongly disagree – 10 strongly agree) which included statements such as “I feel good about myself”, “I like science”, 2) using a 2 point yes/no response option (e.g., “Do you separate things at home for recycling”), 3) Science items through a series of multiple choice questions, 4) and one open ended question to obtain a qualitative response. The findings are listed below:

- **Social and Personal Skills** - Students who participated in the program showed an increased gain in conflict resolution six to ten weeks after the program ended compared to those that did not participate. This was concluded by self-assessments, teacher ratings and parent ratings.
- **Stewardship of the Environment** - Students who participated in the program showed an increase in environmental stewardship and maintained that increase six to ten weeks after the program. This was documented with self-reports and parent reports of student behaviors.

- **Knowledge and Understanding of Science Concepts** - Children who participated in the program significantly raised and maintained their science scores by 27 percent, as measured by pre and post surveys administered when they returned to school.
- **Benefits for English Language Learners** - 58 Percent of the students were English Language Learners who after participating in the program demonstrated gains in cooperation, leadership, and relationships with peers, and motivation to learn according to teachers reports.
- 56 percent of the treatment group reported that the outdoor learning program represented the first time they had spent time in a natural setting.

The goals of this program closely mirror OLVF's mission, goals and intended population.

This program was designed to “foster stewardship of the environment and appreciation of the importance of the wise use of natural resources”. OLVF's mission aims to increase knowledge of science and the outdoors, and foster environmental stewardship. OLVF's target population is underserved youth.

### Observations

1. In addition to pre and post surveys, this program conducted a third set of surveys weeks after the conclusion of the program. Pre and post surveys have been updated for distribution to OLVF program participants during the 2016 summer; however, a second set of post surveys has not been created or incorporated into the current program. If OLVF had the resources to conduct a 2<sup>nd</sup> post-survey, possibly sent out via email to parents, it would collaborate with and strengthen the outcome measures as it was seen in this study.

2. These children are recruited directly from the school district and the program was held during school hours in contrast to OLVF that recruit from the local YMCA and the programs are held during the summer months.
3. Student surveys are lengthy and the methods vary which include, 1 -10, yes/no, multiple choice and a qualitative question. This may be a more reliable way to obtain participation from students for OLVF.

### Cognitive and Affective Learning in Outdoor Education

A research study was conducted at the Nonquon Outdoor and Environmental Center in Ontario, Canada to determine the cognitive achievement and environmental attitudes of youth. There were a total of 184 youth (4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> graders) who were distributed into two learning environments, one was classroom instruction and the other was outdoor learning of the same curriculum. The participants in the outdoor learning group studied beaver ecology six half-days with the same instructors to prevent variation or inconsistencies. However, some variations had to be made due to weather and outdoor conditions during the study. The second set of participants received the materials via classroom instruction, videos with similar objectives and delivery times as the outdoor learning group.

These youth were administered pre-surveys, post-surveys and a second set of post-surveys two weeks after the completion of the program. The surveys consisted of four sections, demographics, and prior experiences with nature (eg. “How often do you watch nature programs on TV?”), attitudes towards nature (“I think that snakes are neat, I like to watch them”), and lastly, questions regarding their cognitive achievement which consisted of 12 short

answers regarding beaver ecology, the topic of the program (eg. “How do beavers comb their fur?”).

Data analysis was conducted for the treatment group (outdoor) and a control group (classroom) using a statistical software program to determine means, standard deviations and reliabilities. In addition, due to their being two surveys administered, Analysis of Variance was used to evaluate the significance of differences among the two means, at the same time. The results of this study demonstrated that both groups made gains in cognitive learning, however, the treatment group (Nonquon Outdoor and Environment Center group) made greater gains in cognitive learning.

Although this study did not focus on environmental stewardship and interest in natural sciences, it was able to demonstrate an overall increase in educational benefits to outdoor learning. More importantly, it corroborates positive impacts in the area of outdoor learning, its effectiveness and benefits to youth and the community.

### Observations

1. Surveys were conducted at specific intervals throughout the program, pre, post and again, certain weeks post conclusion to determine if the results were sustained. Similarities in survey collection were noticed for OLVF such as: Collection of demographics, attitudes towards nature, and knowledge of materials taught. However, this study included an additional set of questions relating to prior experiences with nature. Adding questions relating to prior experiences with nature to their program surveys would allow OLVF to obtain background knowledge for participants that would help understand and better analyze their progress in the program.

2. This study consisted of the administration of two surveys that consisted of the same data collection but varied in the way they were structured. These were later analyzed using specific methodology to ensure adequate comparison and data reliability.
3. Interesting to note was that the effect of the program on environmental attitudes in the participants showed no impact in the control group nor the treatment group. However, the cognitive outcomes of both the treatment and the control groups increased however the treatment group demonstrated a larger improvement that was sustained.

### Directions – Youth Development Outcomes of the Camp Experience

This study was conducted by Philliber Research Associates and the American Camp Association and claims it is the largest research study of camper outcomes ever conducted in the United States. This study reports that parents, camp staff, and youth reported significant growth in: self-esteem, independence, leadership, friendship skills, social comfort, peer relationships, adventure & exploration, environmental awareness, values and decisions, and spirituality.

80 American Camp Association (ACA) accredited camps from across the country took part in this study. The camps consisted of, day camps, resident camps, one week, multi-week, single-gender, and co-ed, private and agency camps, for-profit and nonprofit, and religious camps. The students age ranges were between 8 and 14 years old and were from diverse racial or ethnic backgrounds with minorities “oversampled”.

Participating camps were sent permission forms and pre-camp surveys (50 pages) via mail. 5,281 pre-camp surveys were received. The pre-camp surveys consisted of statements about the following:



- **Self-esteem** (eg. “I feel confident in myself”, “my child believes s/he is an important person”),
- **Independence** (eg. “I’m good at doing things on my own”, “my child feels s/he needs help with most things s/he does”),
- **Leadership** (eg. “I get other kids together for games”, “If kids were choosing a leader, they might vote for my child”),
- **Friendship skills** (“I like to play with new kids”, “My child talks to other kids who are different from him/her”),
- **Social comfort** (eg. “I worry my feelings will be hurt if I like other people too much”, “My child worries about making friends”),
- **Peer relationships** (eg. “I get along with others”, “My child feels that other people like it when s/he is around”),
- **Adventure & exploration** (eg. “In the past week, I did a new activity”, “My child likes to try new things”)
- **Environmental awareness** (eg. “Wild animals should be protected”, “My child cares about nature”),
- **Values & decisions** (eg. “Before I make a decision”, “I think about what might happen, My child thinks about how s/he can help other kids”), and
- **Spirituality** (eg. “I have a close relationship with God”, “My child likes going to church, synagogue, or mosque”).

Ratings were on a 4 point scale (1 disagree a lot, 2 disagree a little, 3 agree a little, 4 agree a lot) and participants received an incentive to participate. In addition, camp counselors provided an observation of the camper's strengths and weaknesses.

Post-camp surveys were completed at the end of camp by both the participants, parents and the camp staff. The camp staff and participant surveys were nearly identical to the pre-camp surveys. Parents were given an incentive to complete the post-survey after their child returned from camp. A total of 3,400 post camp surveys were completed with a response rate of 64%. Lastly, follow-up surveys were sent out to the families to determine if the growth during camp was maintained six months after the conclusion of camp. Each family was provided an incentive to complete this survey. A total of 2,294 post-surveys were received.

Of the 103 camps that chose to participate, 80 successfully completed the data collection. Data collection percentages for the various camps were as follows: one-week sessions 57%, two to four week sessions 31% and six – seven- eight week sessions 12%. The facilitator for each camp attended a full-day training at a national or regional ACA conference to understand the purpose of the study. The data was analyzed for each category listed above and the following results were observed:

- **Self-esteem** – significant increase reported
- **Independence** – Significant increase reported
- **Leadership** – Significant increase reported
- **Friendship Skills** – Significant increase reported
- **Social Comfort** – No significant change
- **Peer Relationships** – Slight decrease

- **Adventure and Exploration** – Significant increase and largest gains
- **Environmental Awareness** – No significant changes
- **Values and Decisions** – No significance changes
- **Spirituality** – Significant increase

### Observations

1. This study did not include a control group, so there was no comparison for participants that did not receive the “treatment” or program instruction.
2. This study provided incentives to parents and participants to complete the surveys.
3. There were various categories of the surveys in which participants reported no significant impact. This pattern has been seen throughout all of the studies including the analysis of OLVF survey data.

### Findings from the Literature Review

Various observations were noted within the three surveys. In particular there were some similarities in program missions, outcomes and program methodology to the programs currently being administered by OLVF. There were also significant differences in data analysis between the studies described above and OLVF. Significant differences were in the survey questions, method of distribution, incentive to complete surveys, consistency of surveys, and participants completing the surveys.

Robin Moore and Allan Cooper published a national guideline manual “Nature, Play & Learning Places” in which they provide guidance for organizations, schools and businesses to

successfully implement outdoor learning programs to attract youth both young children and young adults to interact with the environment. This manual discusses the processes of building and maintaining a successful program. It begins with the benefits of outdoor learning and then continues to discuss the various facets of a successful program from identifying appropriate locations, program design, program implementation and management. In addition, it provides recommendations and best practices for community partnerships with schools, local government and local non-profits that would be beneficial for OLVF as they begin to grow and bring the program to capacity.

## Purpose

The purpose of this study was to evaluate Outside Las Vegas' educational program impacts on youth participants at the four YMCA Locations in Southern Nevada (Durango Hills, Centennial Hills, Heinrich, and Sky View). The goal was to find appropriate methods for the organization to better their current model for the proposed program and use this information to gain funding through grants and funds from other public and private entities.

## Research Questions

1. How can better data collection lead to an increase in funding?
  - a. How can better data collection lead to accomplishing their mission
  - b. Is data collection relevant to meeting performance measures?
  - c. Is current data collection relevant? Can it be modified?
2. Is data collection relevant to the intended program? Is it effective?

- a. Are program components being delivered properly? (ex: education modules, field trips, etc).
  - b. Is the program well organized? Are program resources, facilities, and funding adequate to support important program functions?
- 3. What demographics are being sought out/being reached?
  - a. Are members of the target population aware of the program?
  - b. Is the program performance at some program sites significantly better or poorer than at others?
  - c. Is community connectedness being measured?
  - d. Are students benefitting from education modules and field trips?
    - i. Is their interest and knowledge in science increasing/decreasing?

### Expected Findings

$H_1$ : The modification of past surveys, modules, and data will allow OLVF to apply for more grants, better tune their program and expand, and reach out to more demographics.

$H_0$ : The modification of past surveys, modules, and data will not fix OLVF's YMCA program.

### Methodologies

A mixed methods study was selected as an effective approach for this evaluation. This type of study was performed in order to tackle our research questions from every angle, making an in-depth, contextualized insight to provide Outside Las Vegas an accurate evaluation for their program.

A quantitative study was used to collect data through pre- and post-surveys administered to the youth participating in the educational program to see how much they have learned plus the overall satisfaction of the program. The pre-survey was administered to the students after the in-class portion of the module ended and was completed in the YMCA location. The post-survey was completed at the end of the field trip for the module either at the location of the field trip or on the school bus that transported the children from the YMCA. The surveys were given at the end of the day of each learning module to assume that not all children will stay for each of the modules. These responses were collected by Cheresa Tiang and scanned and sent to Team B.A.R.K, in which they manually inputted the data into an Excel file for the data analysis to compare the pre- and post-responses of the children at each location.

In addition, parent surveys were given to parents at each of the YMCA locations for them to complete and give back when their child was finished with the modules. Since all parents may not have the time to complete a paper survey, an online version was created through *Qualtrics* and a QR code was made and put on the paper application along with the link so it can be taken on a computer, tablet, or mobile phone. The parent survey was created in both English and Spanish. The parent survey was administered to determine the overall satisfaction of the program. These parent responses were recorded and analyzed by Team B.A.R.K. to determine their final funding recommendations.

A qualitative study was used to compare Outside Las Vegas' education program with similar programs across the country. First, a literature review was conducted to see how other studies similar to the program evaluation Team B.A.R.K. is doing and comparing the results and observations to OLVF. Additionally a benchmark study was conducted in which online research

and phone interviews were done with five other organizations across the nation to determine effective solutions, recommendations, and demographics from similar education programming to Outside Las Vegas. Through the benchmark study, a comparative analysis was performed to help determine final recommendations for Outside Las Vegas.

### Setting and Procedures

The educational programming takes place at four YMCA locations – Centennial Hills, Durango Hills, Sky View, and Heinrich. The selection of these locations is due to the availability and willingness of the participation of these areas. Each of the four locations will learn the same three modules:

Module 1: Symbols and Rock Art (June 27<sup>th</sup> to July 8<sup>th</sup>)

Module 2: Into the Mojave (July 11<sup>th</sup> to July 22<sup>nd</sup>)

Module 3: Camp Oh-No! (July 25<sup>th</sup> to August 4<sup>th</sup>)

Each module consists of one in-classroom lesson the first week, followed by one field trip related to the module the second week. For example, the Centennial Hills location will have their in-classroom lesson for Module 1 on a Monday, with the next Monday being the field trip; the Durango Hills location will have their lessons on a Tuesday, and so on and so forth with the following locations.

Before and after each field trip, students will be asked to complete a pre- and post-survey (total of 3 pre-surveys and 3 post-surveys). These answers will be analyzed to determine the growth and effectiveness of each educational module and what OLVF can do to improve and enhance their program. In addition a post-survey will be administered to the child's parents

provided through their email. Team B.A.R.K. and OLVF garnered emails through permission slips, the YMCA's directors, and collecting emails the day of the module. Parent answers will mainly determine satisfaction with the overall program plus provide demographic data for OLVF to use in statistical reports and grant-writing supplements.

### Study Participants and Parent Survey Results

A purposeful sample of all youth for the 2016 summer season, as well as their parent/guardians participated in this study. Through the parent survey, we were able to collect demographic data including gender, age range, race/ethnicity, zip code, and other factors to find out if OLVF is reaching their targeted audience and if it is beneficial.

From the results of the parent survey, we did not receive very many answers from the paper or online version. For the paper survey, we received two different batches – one from Centennial Hills and one from Sky View. For Centennial hills, we received four surveys. 50% of the parents were male and 50% were female parents, with similar percentages being the reported children's genders. All parents and children were White/Non-Hispanic and spoke English. According to United States zip codes, 76.2% of people living in this zip code are White, with a good 50/50 split of male and female demographics (United States Zip codes). The age range of the parents ranged from 35 to 54, with one child ranging from 5 to 8 and three being in the 8 to 10 age range. 75% of the parents were married or in a domestic partnership (25% being divorced) and all were employed for wages and making a total household income of \$50,000 or more. The area in which most of the participants were located in was in the 8913, which is where the Centennial Hills location is located. The parent expectations of the program were mixed,



ranging from neutral to very high, with the children's expectations being a steady high surprise. Most parents would recommend this program to others, with only one parent expressing the concern that the program was a little overcrowded and a little disorganized.

For Sky View, we received 12 surveys. These responses were more diverse, having a wide range of parent and child ethnicities. The largest percentage of ethnicities was still White/Non-Hispanic at 41% for parents and 25% for children. 10 out of 12 parents spoke English, with all 12 children having English as their primary language. The age range of the parents varies all across the board, with the child range closely falling into to 8 to 10 year old percentile. Most parents (66%) were married and in a domestic relationship, and it was interesting to see that their employment status varied from 'employed for wages' to 'homemaker' to 'military' (versus the Centennial surveys, in which all parents were 'employed for wages'). Most parents (58%) household income was \$25,000 to \$49,000. There were most varieties of zip codes from these surveys (89081, 89084, 89081, and 89034), but there were at least two or more people residing in the same zip code. These zip codes also correlated to where the Sky View location was located, so it makes sense these zip codes would attend this locality. Lastly, the expectations of the parents were mostly neutral at 58%, while the children's expectations were split 50/50 between 'neutral' and 'high.' 10 out of 12 parents would recommend this program to others, with most of the comments saying that their child enjoyed the program and that they enjoyed the field trips.

From the online survey through *Qualtrics*, we received 7 surveys, but only 5 were fully completed, so we will be using the 5 completed surveys to perform our analysis. From the five surveys, 2 came from Centennial, 1 came from Durango Hills, and 2 came from the Heinrich

YMCA location. 2 of the parents were male with 3 being female; one of the child's gender that was participating in the program was male while the other four were female. One parent answered the survey in Spanish (with their child's primary language being Spanish). Half of the parents were White/Non-Hispanic while the other half was Asian, with the child ethnicities matching the parent's ethnicities; all four participants (parent/child) spoke English. The age range of the parents ranged from 35 to 44, with children's age ranges varying from 5 to 8 (2 children), 8 to 10 (2 children) and 10 to 12 (1 child). Most parents were married or in a domestic partnership, and all were employed for wages. A majority of the parent's total household incomes was from \$50,000 or more, with a couple choosing not to answer the question. The zip codes of the parent's matched the zip codes of which the YMCA location they were located in. The expectations of the parent and the children for the program was relatively high, with a couple outliers answering neutral or low. 60% of the parents would recommend this program to others, with the other 40% answering "maybe". The only comment we received from the online survey was that: "My daughter has attended for 5 years now. She has stated this year is the worst year. She said it is unorganized, and the counselors do not know what they are doing."

With these results, we can be able to determine final recommendation in order to improve this program from the responses we received. Additionally, with the demographic data we received, we can see the audience Outside Las Vegas is serving and if they are communicating and serving the underserved populations that they intend the reach. From the parent surveys, it does not seems that they are reaching the demographic they want to serve, so our final funding recommendations has to reflect our findings.

## Data Analysis

Team B.A.R.K. teamed with Outside Las Vegas to perform pre and post surveys for their educational program at four YMCA locations (Centennial Hills, Durango Hills, Heinrich, and Sky View) in the Las Vegas Valley. The overall educational program is separated into three modules; each module is two weeks long, in which students meet once a week. The pre-survey was given at the end of the day of the first week and the post survey was given at the end of the second day of the second week. Questions that the children were asked were very similar across modules, except for a couple questions that were only pertaining to the subject being taught (ex: Module 1 [Symbols and Rock Art] focused on Red Rock, so students were asked if they connected to Red Rock Canyon; Module 2 [Biodiversity & the Web of Life] focused on the Wetlands Park, so students were asked if they connected to the Wetlands Park). Most questions were asked on whether they enjoyed spending time outside and if they were interested in science. In addition, YMCA provided questions to add to these surveys to determine overall satisfaction at the YMCA locations. The following are the nine questions that we asked the children participating in the survey:

1. I like to spend time outside.
2. I feel healthy when I go outside.
3. I like science about nature.
4. I am attached to Red Rock Canyon (Module 1)/ the Wetlands Park (Module 2).
5. I would like to work at a park when I grow up.
6. Parks protect history (Module 1)/ All living things are connected (Module 2).
7. I set a new goal this week and achieved it! (YMCA Question)

8. I have made new friends at the Y Camp! (YMCA Question)
9. I can be myself at the Y. I belong here. (YMCA Question)

Source: *See Appendix D for Module 1 and Module 2 Survey templates*

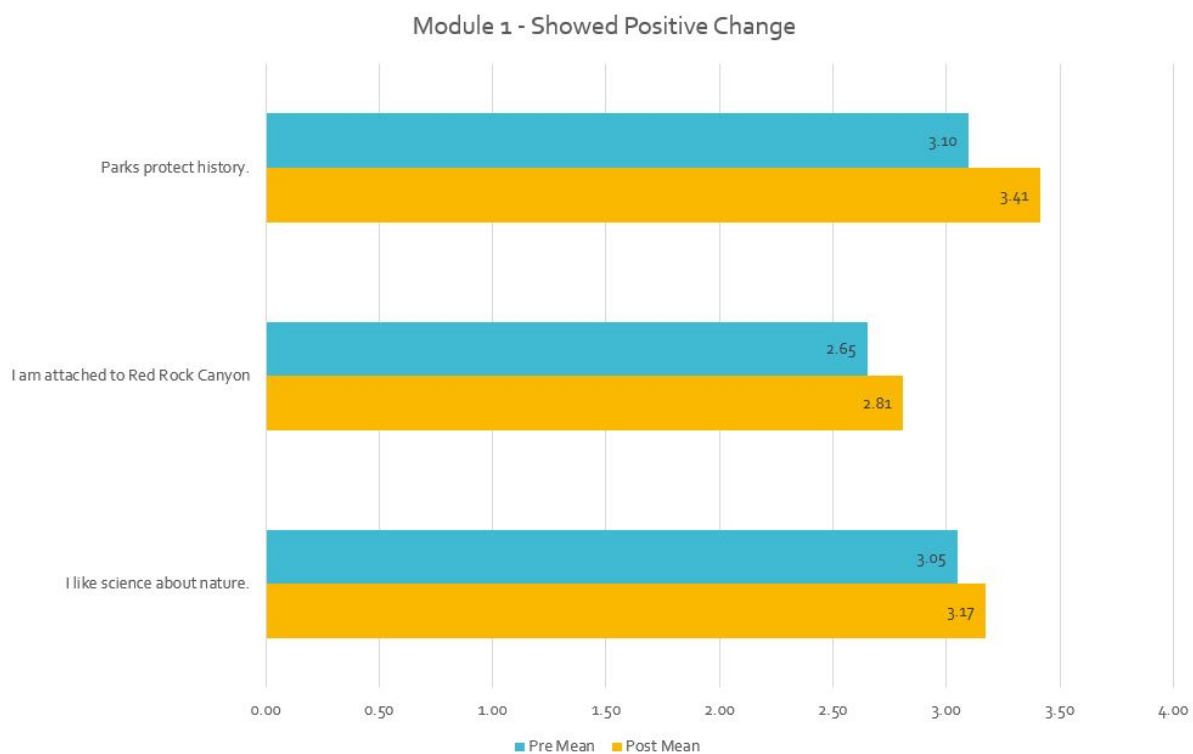
Responses were manually recorded into an excel file and pie and bar charts were created to determine the effectiveness of the program. Only an analysis of Module 1 and Module 2 was completed. (*See Appendix B-1 for Module 1 and Appendix B-2 for Module 2 Charts and Graphs*). From the data, we can see that there are many positive shifts in attitudes towards the outdoors through the provided field trips, but the overall interest in the outdoors have several factors that could determine why there was a slight decline in some responses. Overall, students were attentive about what was being taught to them, and showed many attributes that can help Outside Las Vegas determine future programming in the future.

### Module 1: Symbols and Rock Art (June 27<sup>th</sup> to July 8<sup>th</sup>)

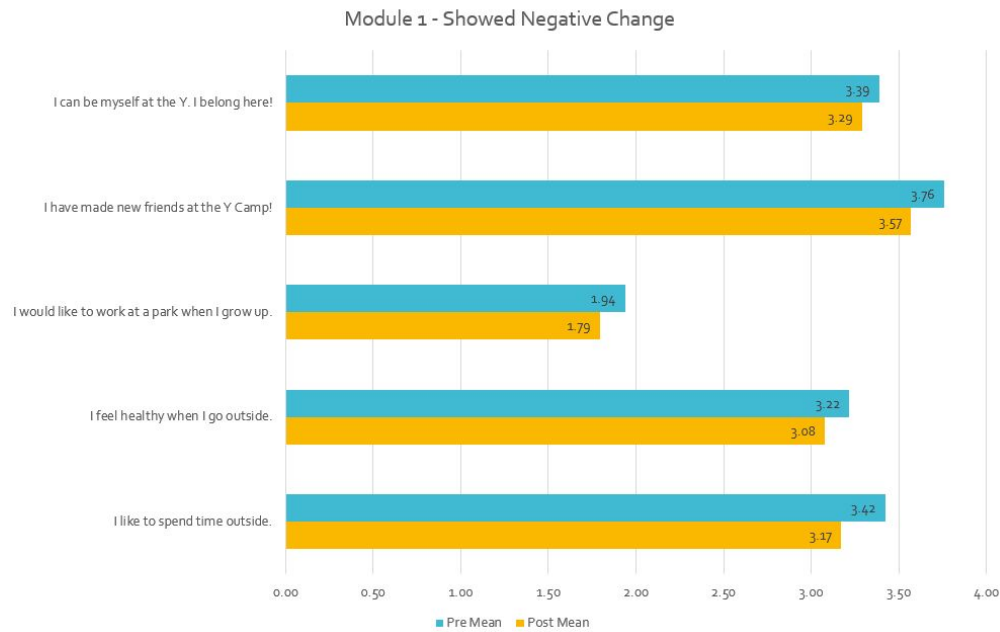
For Module 1, there were 176 completed pre-surveys that were answered. We excluded any surveys that were only complete either in the pre or the post survey group, and excluded any surveys without any names (since we matched pre and post surveys to the participants names, and gave them a special unique ID so we can track their progress, which location they participated in). Due to these characteristics, Module 1 went from 176 pre-surveys to 64 completed pre and post surveys, making it a 64% drop rate of either students that did not show up to the second week or did not put their name on their post survey.

Our group decided to use the pre and post mean to determine the positive and negative shifts in the data, and then used the difference to determine the percent change of how much the

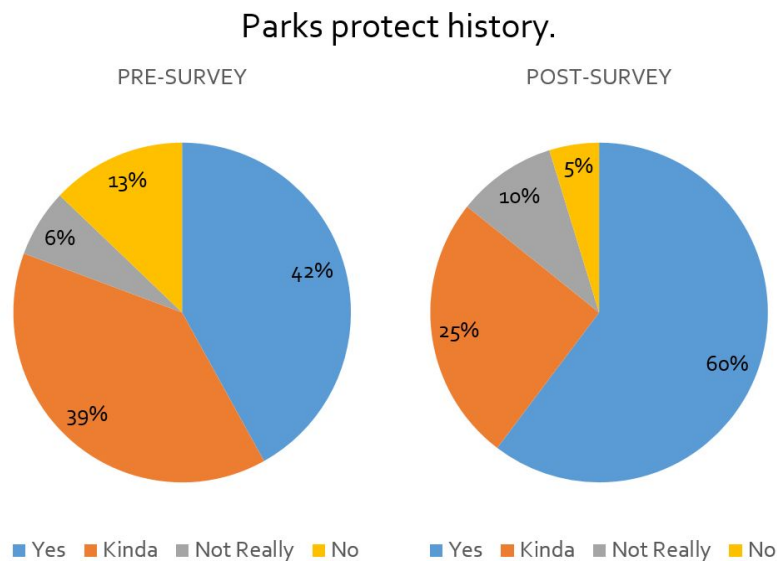
results fluctuate per question. The data analysis for this shows an overall positive shift in attitude towards Red Rock Canyon and the values that Outside Las Vegas is working to instill in Las Vegas' children. These questions are "I am attached to Red Rock Canyon" and "Parks protect history;" both showed a 6% and 9% positive change, respectively. There was also a positive shift with the thoughts of "I like science about nature." These three questions can all be correlated to the incorporation of an outdoor field trip to Red Rock Canyon at the end of the second week.



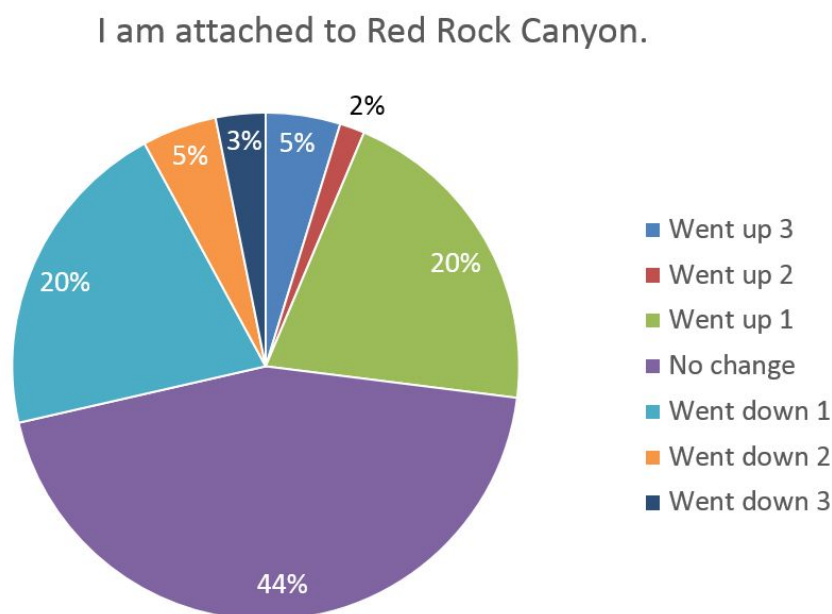
While there are a couple negative shifts in attitudes, this may be attributable to how the survey questions were worded. For the sake of only evaluating Outside Las Vegas, we did not include responses for the YMCA based questions, due to that most of the responses were overall positive and did not show much change in the pre and post surveys.



The question that showed the most positive result is question six: Park protect history. The median response from pre survey to post survey data was 18.4% within the most positive category of “yes” and a decrease in the median response from pre survey data to post survey data was 8.1% with the most negative category of “nope”.



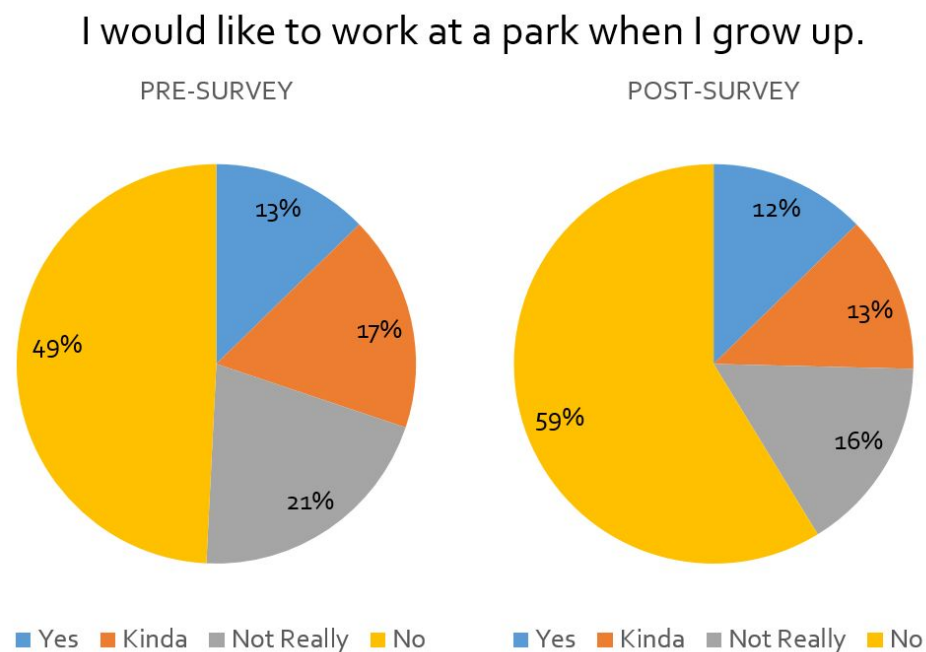
This shows that Outside Las Vegas is doing an excellent job in connecting the historical significance of Red Rock Canyon to the importance of the need to protect and respect the park. At first glance, question four “I am attached to Red Rock Canyon” would appear to show negative responses (a growth of 24% to 27% in answering negatively). However, on closer examination, it can be seen that the only category that shrunk by percentage was the most negative category of “no”. All other categories showed an uptick in selection or no change.



Questions 1 (I like to spend time outside), 2 (I feel healthy when I go outside), and 5 (I would like to work at a park when I grow up) showed an increase in negative responses from pre to post surveys. However, this quite possibly could have more to do with weather factors and wording problems. Questions 1 “I like to spend time outside” and 2 “I feel healthy when I go outside” may specifically be related to weather during the summer, and the corresponding field trips at the end of the modules. Despite the positive shifts in attitude to the connectedness of Red

Rock and that parks protect history (Questions 4 and 6, respectively), these do not count factors that the time of day, length of the excursion, temperature could affect the student's overall good time during their out of class field trip. Module 1 was taught in late June, with the average temperature being in the 100s. This may have significantly impacted how the students felt about spending time outside during the field trip to Red Rock Canyon. Although only an assumption, the data shows that even though the interest is in the topic is there, other factors can determine the impact of how the students felt during the module's activities.

Question 5 "I would like to work at a park when I grow up" has the most negative response of all questions from pre to post:



Again, this could be weather related, wording of the survey related, or material related. We saw a dramatic shift (30% to 25%) drop in positive responses due to these factors. The module could provide more time for discussing the benefits of working in a park or the change



the wording of the question to something that sounds more positive to children. It is clear that if OLVF wants to see their students have a growing interest in working at a park or in the science fields, but the way in which the question was posed may have caused confusion to the children, and led them to answer negatively to the question.

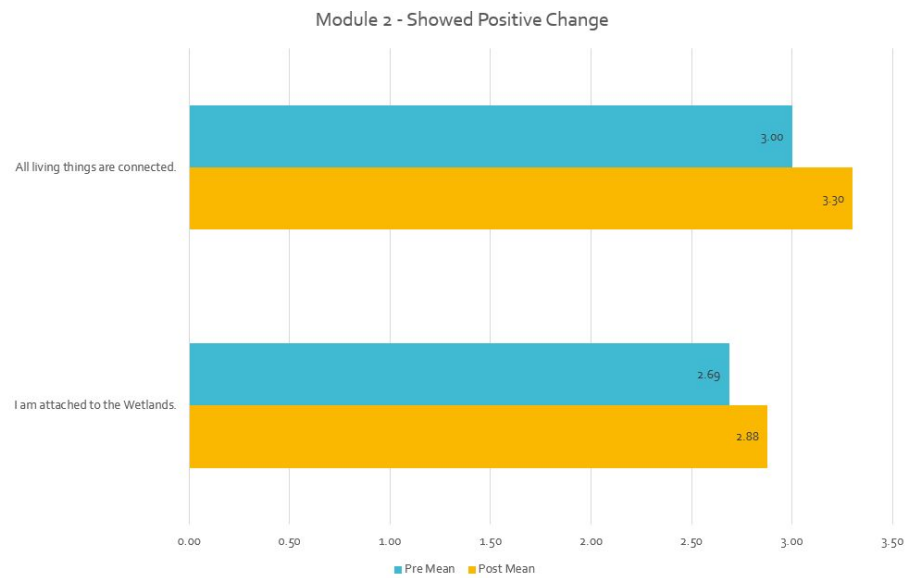
In regards to the YMCA related questions (Questions 7, 8, and 9), from pre to post survey, all of the questions maintained a very positive response rate with no significant movement between overall positive and negative response rates. This shows that the YMCA does an excellent job in communicating their mission and vision to the children attending the Y camps during the summer.

## Module 2: Biodiversity and the Web of Life (July 11<sup>th</sup> to July 22<sup>nd</sup>)

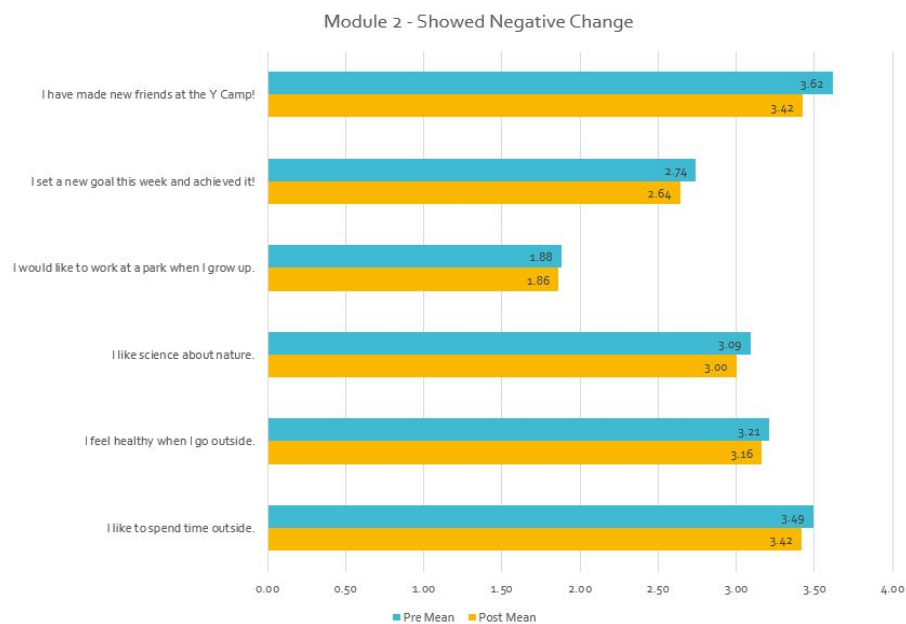
For Module 2, there were 174 completed pre-surveys that were answered. Again, we excluded any surveys that were only complete either in the pre or the post survey group, and excluded any surveys without any names. Our group noticed that, since we gave unique IDs to the students, that many returned to participate in Module 2. At the end of Module 2, there were 66 completed pre and post surveys, making it a 63% drop rate of either students that did not show up to the second week or did not put their name on their post survey.

The data analysis for this module shows an overall positive shift in attitude towards the Clark County Wetlands Park and the values that Outside Las Vegas is working to instill in Las Vegas' children (with the question "All living things are connected). Similar to Module 1, these

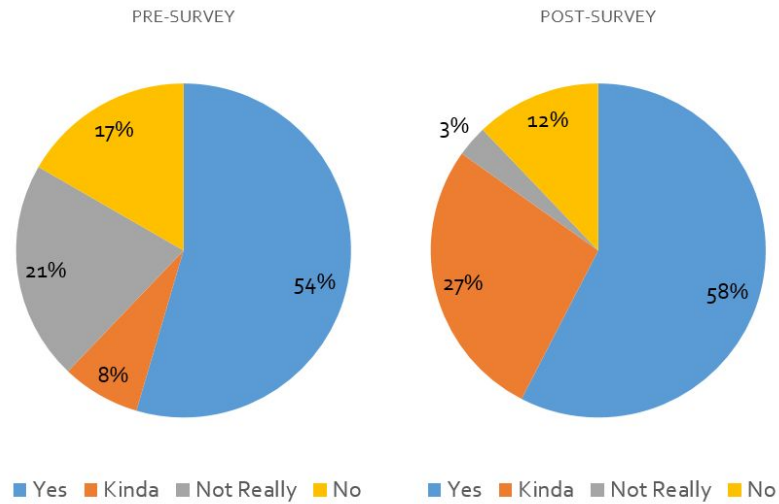
questions showed a 7% and 9% positive changes from the pre to post surveys. Again, this can be determined through the outdoor field trips that were provided in the second week of Module 2.



While there are some negative shifts in attitudes, this may be attributable to how the survey questions were worded.

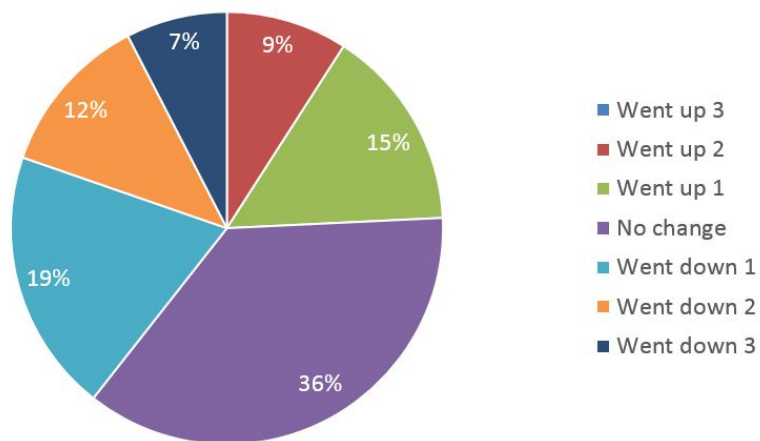


## All living things are connected.

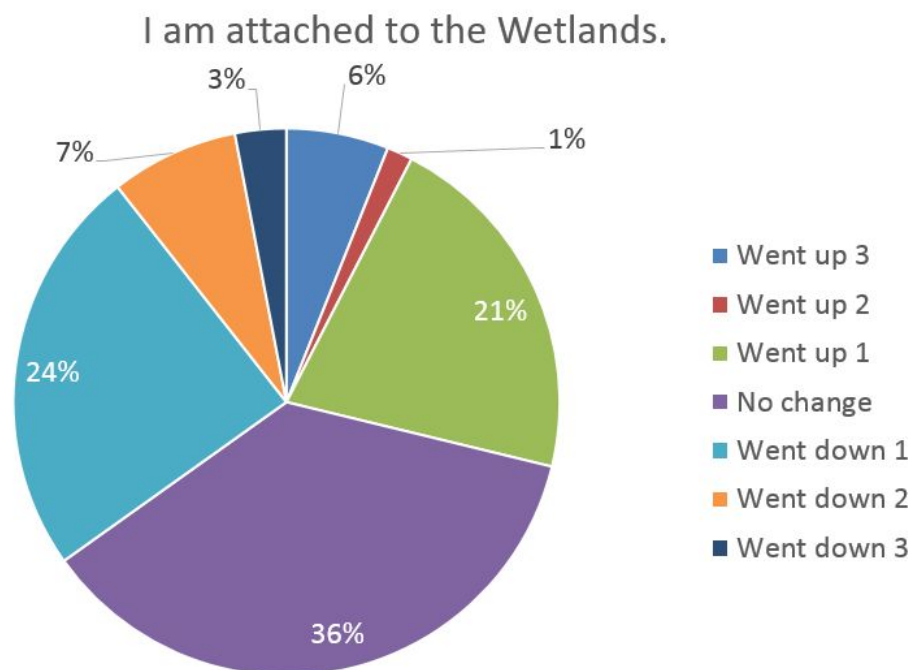


The question that showed the most positive result is question six: All living things are connected. The median response from pre to post survey data went from having a 38% negative response to a 15% negative response. We can also see that the changes in positive responses has gone up 31% (the answers either went up 1 level, 2 levels, or a complete 'no' to 'yes' turnaround).

## All living things are connected.



This shows that Outside Las Vegas is doing an excellent in connecting the biological importance of the wetlands and the importance of the need to protect and respect the park system the wetlands fall under. At first glance, question four “I am attached to the Wetlands” would appear to show negative responses. However, on closer examination, it can be seen that the only category that shrunk by percentage was the most negative category of “no”. All other categories showed an uptick in negative selection or no change.

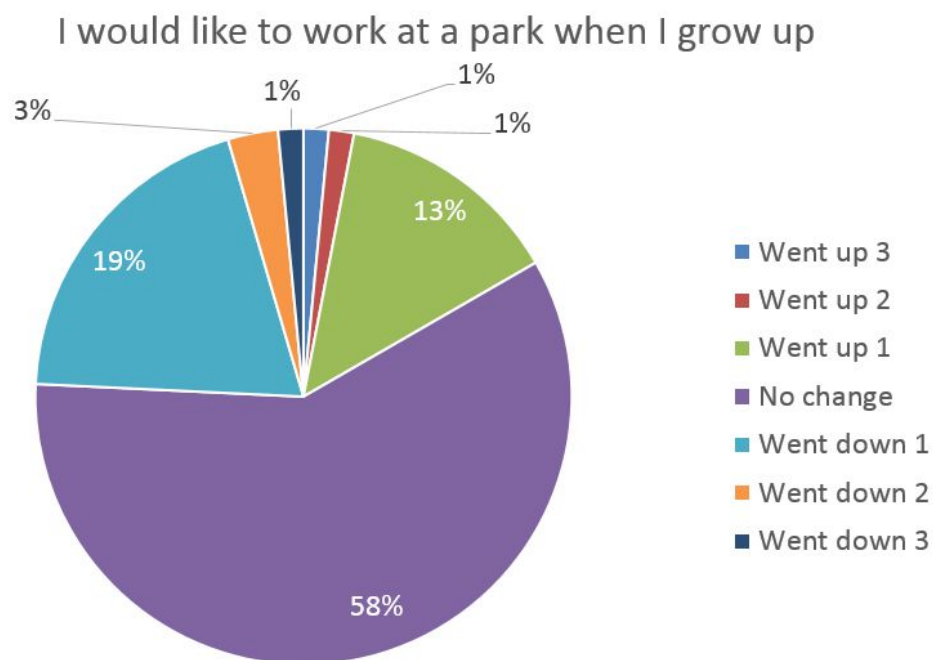


Questions 3 (I like science about nature), 2 (I feel healthy when I go outside), and 1 (I like to spend time outside) showed significant negative responses from pre to post surveys. However, like Module 1, this quite possibly could have more to do with weather factors and wording problems. Our group noticed that the post surveys are either taken at the site of the field trip or on the bus ride back to the YMCA. These questions that mean to ask the student’s overall

interest in these subjects to be minimized to how they are feeling at the time after the field trip.

Questions 1 (I like to spend time outside) and 2 (I feel healthy when I go outside) may specifically be related to weather during the summer. Module 2 was taught in early July, with the average temperature being in the 110s. This may have significantly impacted how the students felt about spending time outside during the field trip to Wetlands Park.

Additionally, Question 5 “I would like to work at a park when I grow up” has the most negative response of all questions from pre to post, but the least amount of change when it can to comparing the pre to post (58% did not have a change in their answer, and there was little significant change in answers on both the negative and positive scale.



This could be subject or material related. The module could provide more time for discussing the benefits of working in a park or change the wording of the question to something that sounds more positive to children. Again, as stated in their mission statement, they want to

have more diversity in science programs and careers, so in order to enact this change, this area needs to be enhanced for future modules in this program.

### Module 1 & 2: A Comparison

Module 1 and 2 had very similar survey results when comparing questions that garnered positive and negative responses. For example, the questions relating to the field trips (Red Rock Canyon and the Wetlands Park) showed very similar positive changes (almost 6-7%) in improvement. Additionally the questions that related to the module – “Parks protect history” and “All living things are connected” – which focus on the specific subject being taught in the module showed the high results are well; both showed a 9% increases in both questions, respectively. This helps to reinforce the ideas that Outside Las Vegas is succeeding in teaching the students the importance of the park system and how children students relate to the areas highlighted within these modules. Upon learning about the Wetlands and Red Rock Canyon, the students are able to claim ownership and pride in the natural environmental formations that are present in the Las Vegas valley. By providing the children a source of pride, it seems that they are better able to communicate the importance of protecting Las Vegas’ parks.

We noticed that there are similar trends in questions that show negative responses as well. “I would like to work at a park when I grow up” always had the most negative responses, with the other questions related to if they enjoyed the outdoors and sciences saw slight negative shift in answers by 1 or 2 levels, meaning the students lost not the interest (as seen in the field trips) but the impact of which they were learning. Although the mean only shows the slight

negative changes in these answers, when looking at the count of the mode, the percentage that went down decreased the most (not taking into fact the answers that showed no change; that always had the biggest percentage). This shows that students aren't completely switching from a "yes" to "no" way of thinking, it shows that they show hesitation due to the fact that they have just went on an outdoor excursion, outdoor temperature and timing factors were in play, and they weren't thinking on a long-term basis. Outside Las Vegas is still showing positive influences on these students and their way of taking in the environment, it is just how they organize it to a young audience that still needs improvement.

Through our data analysis, it shows that the data collection is indeed relevant to the program to show overall satisfaction, but the surveys and questions still need modification. These also answer our questions of "Is the program well organized?" and "Is data collection relevant to meeting performance measures" and "accomplishing their mission." As one can see in our final recommendations, these can be answered and help Outside Las Vegas evolve as an organization.

### Module 3: Camp Oh-No! (July 25<sup>th</sup> to August 4<sup>th</sup>)

Due to the time restraints of Team B.A.R.K.'s allocated class time and Outside Las Vegas' ongoing schedule, a full analysis of Module 3 could not be completed. Additionally, Outside Las Vegas decided not to conduct the Module 3 pre- and post-survey due to the restraints. Recommendations for the program evaluation will only reflect the data collected from

Module 1 and 2, but the procedures done with Module 1 and 2 can be reflected how Outside Las Vegas conducts their modules for future years.

## Benchmark Study

Team B.A.R.K decided to perform a benchmark study to do a comparative analysis on Outside Las Vegas' programs with similar outdoor/outreach programs across the United States. While doing this research, Team B.A.R.K looked specifically at outdoor programs that had a similar format to OLVF's YMCA Educational Program – the program had to include an in-class portion supplemented with an outdoor field trip. Most of the programs found did not partner with a non-profit community service organization not specifically focused on environmental awareness, such as the YMCA (which focuses on outdoor recreation). The team had to narrow the benchmark study to five organizations, and asked similar questions to generate the research questions of demographics and funding. (See Appendix C for Benchmark Study chart).

Besides asking questions about the overall educational program that was offered, other questions that were asked were:

- What is the mission of your organization?
- Where is your organization located?
- How long has your organization been in business?
- How many staff (full time, part time, volunteers), does your organization have?
- What is your organization's most recent budget? (Total Revenue, Total Assets, Expenses, etc.)
- What is the age range of the youth that you serve?



- What are the demographics that you serve?
- What is the ethnicity of the program participants?
- What is the gender of the program participants?
- What are the educational benefits of your program?
- How did the organization grow and develop over time?

### Appalachian Mountain Club – A Mountain Classroom

*“Education can be active, engaging, and relevant and can stimulate the mind, body, and soul.”*

*- AMC*

The mission of the Appalachian Mountain Club is to “promote the protection, enjoyment, and understanding of the mountains, forests, waters, and trails of America’s Northeast and Mid-Atlantic regions. (They) believe these resources have intrinsic worth and also provide recreational opportunities, spiritual renewal, and ecological and economic health for the region. Because successful conservation depends on active engagement with the outdoors, (they) encourage people to experience, learn about, and appreciate the natural world” (AMC, 2016). Founded in 1876, the Appalachian Mountain Club (AMC), promotes the environment through 12 chapters in the Northeast and Mid-Atlantic regions. Based in Boston, Massachusetts, the AMC has more than 100,000 members, advocates, and supporters; more than 16,000 volunteers, and 450 full time and seasonal staff (AMC, 2016). In regards to youth engagement, Joe Princi, Chapter Chair of the Boston Chapter of AMC, said that AMC fosters a connection with nature and is necessary in building this relationship for the next generation. AMC has a variety of youth engagement programs, such as AMC’s Youth Opportunities Program (YOP), which teaches

urban and at-risk youth the essentials of outdoor recreation; Outdoors Rx, which works with leading healthcare organizations to “fill prescriptions” to youth to get regular outdoor physical activity; and A Mountain Classroom, which teaches students in grades 5 through 12 a vast array of subjects, such as watershed science, forest ecology, and geology.

A Mountain Classroom is very similar to Outside Las Vegas’ YMCA Program. Both focus on certain areas in environmental studies and uses that in a classroom setting, followed by an outdoor field trip/experience. While Outside Las Vegas uses the term ‘modules’ to divide their summer program, A Mountain Classroom uses the term ‘program bases.’ A Mountain Classroom is year round and partners with local schools; by teaming with local schools, this helps provide in- class learning aspect of the program. A Mountain Classroom provides the school classroom lessons for the teachers to incorporate, and then will schedule an outdoor culminating experience for a span ranging from 1-5 days. This can fit in about 1-2 topics depending on what the instructor chooses. A main difference in A Mountain Classroom’s field trip versus Outside Las Vegas is that AMC does 2-3 hour excursions as well as overnight and multi-day trips. Princi says that the overnight and multiday aspect of the program allows the students to becoming fully engaged with the experience and allows thematic learning and takes out the stresses of daily school life. Outside Las Vegas’ YMCA program is separated into three modules, or topics, and meets once a week for six weeks over the summer. Since Outside Las Vegas partners with YMCA, which is a community center, it is harder to incorporate an in-class learning component, so by bringing the students once every other week to teach them environmental concepts, it is a little shorter timeframe than A Mountain Classroom. A Mountain Classroom also seeks to build personal development and team building in their modules, while

Outside Las Vegas looks just personal development. Yet, both look at state math, science, and ELA standards as the backbone of their lessons and their overall outcomes are for young participants to develop an appreciation for the natural environment and improve environmental literacy through these experiences.

Through these programs, the Appalachian Mountain Club tends to serve all demographics, but they typically try to aim more towards urban and at-risk youth. According to the 2016 Fact Sheet, AMC had 68,645 youth participating in AMC programs in 2015; 30,072 in Youth Opportunities Programs (YOP), 2,746 in A Mountain Classroom, and a variety more in other programs and outreach activities. They do not really look at specific demographics, such as gender or ethnicity – as long as they reach a good consensus and change their outlook of the outdoors is a success for them! As far as a financial standpoint, operating revenues and funding resources have reached AMC's record high, with financial progress has enabled them to sustain and strengthen program support in all areas of AMC's overall mission. Through these efforts, they were also able to reserve funds for future projects and initiatives.

The AMC looks at outreach as a main component to their success, which can thus be mirrored through their financial reports. They seek to inform their community and across the nation through social media; they also print their own book, update their website and visitor's center regularly, and opened up 'AMC Lodges/Huts' that help spread information out to the general public and serve as environmental education centers. According to Joe Princi, they "keep their tabs" on public interactions to make sure that the most efficient information gets out. They also make sure their team is fully trained and knowledgeable on all topics and programs AMC offers, so that each section that makes up AMC runs smoothly.

## Colorado Mountain Club – Youth Education Program (YEP)

The mission of the Colorado Mountain Club is “to unite the energy, interest, and knowledge of the students, explorers and lovers of the mountains of Colorado; collect and disseminate information regarding the Rocky Mountains on behalf of science, literature, art, and recreation; stimulate public interest in our mountain area; encourage the preservation of forests, fauna, and natural scenery; and render readily accessible the alpine attractions of this region” (Colorado Mountain Club, 2016). Founded in 1999 and located in Golden, CO, the Colorado Mountain Club makes sure that current and future generations have access to outdoor recreation and activities. The Colorado Mountain Club is Colorado’s oldest environmental organizations, and focuses on conservation and advocacy, education, and recreation adventure to accomplish their mission.

The Colorado Mountain Club focuses on education by reaching out to school and groups and customize field trips and lessons; this is called the Youth Education Program (YEP). The YEP incorporates Colorado Academic Standards (CAS) with their outdoor programming. Their educational program can fit into any setting – at one’s school, at the American Mountaineering Center in Golden, CO, or at various Front Range fields (local parks) throughout Colorado. The programs typically last from one hour to one week and the YEP works with students grades K-12. The YEP is year-round and ranges from science, math, geography, history, and art in nature.

The YEP works with a variety of organization to bring these outdoor learning experiences into reality. They team up with the American Institute of Avalanche Research and

Education to teach snow science & avalanche safety; the Bradford Washburn American Mountaineering Museum to teach them about geology; and more to support experiential, environmental, and STEM education for students.

The YEP is similar to not only Outside Las Vegas' YMCA program, but the Appalachian Mountain Club in Massachusetts because they incorporate in-class learning with an outdoor excursion. The YEP does programs all year, including Summer Adventure Courses (which can be compared with Outside Las Vegas' YMCA Program); just like OLVF, it is done in modules (Colorado Mountain Club calls it sessions) and are held at the American Mountaineering Center, which is a facility for environmental education. Their sessions last a week and are held every day; they meet for 4-5 hours, followed by a field trip at the end of the week. Their location is ideal for rock climbing, so a majority of their summer courses are mainly about geology and physics.

The YEP relies on contributions from donors, grants, and corporate support to make their program so flexible. There is a small fee per person for each of the workshops that YEP provides, but the maximum amount is \$20; the more intricate the activity is (ex: snowshoe excursions, rock climbing), the more expensive it is, but YEP provides all the equipment needed for the activity. Overall, the Colorado Mountain Club's 2015 fiscal year featured expansions in overall growth, with the Youth Education Program serving 6,905 youth participants. 39% of youth participants were non-white ethnicities, and 1,899 qualified for Free and Reduced Lunch. With assistance of multiple donors and corporate support, the YEP was able to provide need-based scholarships to low-resource schools, giving 3,636 underserved youth an experience with their program.

Scott Robinson, Executive Director for the Colorado Mountain Club, says that the dedication and support of their members, volunteers, and collaborations with sponsors is what helped them grow since the beginning. By keeping and maintaining good relationships, he says, is what has helped the organization strengthen and see their numbers double.

### Thorne Nature Experience- In-School Program

The mission of Thorne Nature Experience is to “build a stewardship by connecting youth to nature through joyful, hands-on, place-based environmental education experiences” (Thorne Nature Experience, 2016). Founded in 1954, and located in Boulder, Colorado, Thorne has connected more than 250,000 children, teens, and adults to nature, and has become a nationally recognized leader in the field of environmental education. Through programs like their summer camp, school program, and field trips, Thorne presently reaches more than 12,000 Boulder County and Front Range youth each year.

Much like Outside Las Vegas’ YMCA Program, Thorne’s In-School Program focuses on teaching environmental studies to children through classroom and hands-on learning. While Outside Las Vegas’ YMCA Program does so by teaching three modules in six continuous once-a-week classroom/field trip sessions, Thorne’s In-School Program goes out to different schools and teaches students one of their eleven different topic modules (depending on grade level) through three hour-long visits of classroom learning and hands-on games and activities. Thorne set their eleven topic modules in a way to address grade-specific Colorado educational science standards, as well as current environmental situations, such as the disappearance of bee colonies, waterway pollution, and alternative energy sources.

Also like Outside Las Vegas, Thorne's In-School Program focuses on working with underserved youth. They placed an emphasis on targeting schools that neighbor Thorne's environmental education centers in Boulder and Littleton, as well as low-income, low-scoring, and culturally diverse schools throughout the Denver and Boulder Metro Area (Thorne Nature Experience, 2016). By looking at the demographics of the schools they attend, 58% of the children they serve are low-income students and 60% are students of color. One advantage that Thorne has over Outside Las Vegas is the fact that their program allows them to go after these schools of high minority and diversity, while Outside Las Vegas' YMCA Program is stationary, and relies on their underserved children to come to them.

Financially, a typical three visit In-School Program costs schools \$500; however, most programs are subsidized and delivered at little to no cost to targeted schools with a high percentage of underserved students. In fact, only 10% of funding comes from schools, while 90% is paid through grants from corporations, foundations, and other private funders.

When asked how Thorne was able to grow and improve upon their In-School Program, Executive Director: Keith Desrosiers stated that beginning to build relationships with the principals of schools, rather than with individual teachers played a big factor in growth. This allowed them to target the schools of greatest need and serve multiple classes in a day, instead of sacrificing resources (teachers, cars, gas money, etc.) to satisfy only one class. This conversion allowed the In-School Program to grow from serving 2,200 students when they first started, to now serving over 7,000. Desrosiers also stated that the program was able to improve in assisting the students by converting from a one-time assembly visit, to the current three-visit program.

Thorne was able to realize that one visit was not an effective method in regards to their mission, so they then switched to teaching specific topics through three visits.

### National Park/YMCA Summer Camps- Let's Move Outside Camps (San Francisco, Point Bonita)

The mission of the Let's Move Outside Camps is to “coordinate efforts to bridge the growing disconnect between young people and the great outdoors by creating meaningful connections to nature through four pillars: play, learn, serve, and work” (Let's Move Outside Camps, 2016). In 2015, the National Park Service teamed up with nine YMCA programs to start the Play, Learn, Serve, and Work initiative. These nine pilot YMCA programs included: Atlanta, Boston, Denver, Los Angeles, Miami, Minneapolis-St. Paul, San Francisco, St. Louis, and Washington, DC; all of whom received grants from the Department of Interior. In 2016, Play, Learn Serve, and Work camps converted to the Let's Move Outside initiative, as part of Michelle Obama’s Let's Move initiative. The Department of Interior continues to provide funding, though at a lesser amount since many more YMCA programs joined in.

Emily Aldo, the program director of the YMCA in San Francisco, Point Bonita stated that there are approximately 60 staff members for their Let's Move Outside camps; however, they receive a lot of support from other agencies, such as Parks and Rec. and Bay Bridge volunteers. She also stated that they were able to expand their program from serving an age range of 8-15 in 2015, to 5-17 in 2016. In regards to their demographic information, they mostly target underserved youth with limited access to camps or other outdoor activities. It is interesting that they do not seem too concerned with gathering specific data on things like ethnicity and gender,



just as long as they can see that diversity is well represented. Aldo did state that ethnic rations reflect the communities they serve (ie: their current group consists mostly of African American and Asian youth, which also represents the majority within the community). She also stated that 65% of their children qualify for free or reduced lunch.

Though the Outside Las Vegas' YMCA Program and Point Bonita's Let's Move Outside initiative both focus on bringing knowledge and interest of the environment to the children they serve, there is a key difference in the methods they use to do so. Outside Las Vegas' structure consists of teaching one of their modules in a classroom setting, and then following it up with a hands-on field trip. Point Bonita on the other hand, feels that it is more effective to learn through their hands-on camp experiences first, and then synthesize their new knowledge and learning afterwards.

When asked how Point Bonita was able to grow and improve upon their Let's Move Outside camp initiative, Aldo stated that refined communication between all agencies that work on the project (Presido Trust, YMCA, National Park Association) played a big part.

Improvement also came through a focus on better training their youth worker to get them prepared to lead groups of children in outdoor experiences. Aldo believes that growth of their project has come from reaching out to other agencies, for example, this year they partnered up with homeless organizations.

Through these questions, we were able to help Outside Las Vegas answer these questions for their own program, and how to get these answers through intensive research and planning so that they can use this information for additional grant funding in the future. As one can see in Appendix C, Outside Las Vegas has a lot of blanks to fill from the questions that other

organizations could ask. By holding the parent surveys, as well as keeping track of the students that participate in the program, Outside Las Vegas can get a better understanding of what they need to entail to evolve and better their program.

## Final Recommendations: Discussion and Implications

The following are final recommendations that Team B.A.R.K. has determined from the literature review, benchmark study, and pre- and post- survey data analysis conducted at the YMCA locations. These recommendations are suggestive, and are for Outside Las Vegas to consider in order to evolve and grow their outreach educational program, specifically the YMCA Informal Program.

### Short Term

1. Data collection using survey techniques need great improvement. This can be done through modifying survey questions and controlling the location on which the surveys are taken.
  - a. The modification of the survey questions is needed to get an adequate response on children's attitudes towards the program and its modules.

It was reported to our group by Cheresa that the students were suffering from “survey fatigue”. The easiest way to alleviate this “fatigue” would be to shorten the survey to 4-6 core questions (our current survey has 9 questions). This year an additional 3 questions were included that focused on the YMCA program. This was a favor for their cooperation with gathering data. The YMCA-based survey questions (making friends, setting goals, belonging at the Y) showed a consistent

positive ranking with the field trips, with barely any movement from pre and post surveys (See questions 7,8, and 9 in Appendix B-1 and B-2). This year's survey should provide YMCA with a template so they can give an individual survey to children participating in their summer programs separate from Outside Las Vegas' survey. Example questions of what can be modified include "I want to work at a park when I grow up" to "I like being at a park" or "I will go to a park again with my friends and family." The jargon of the questions that have a positive impact will most likely elicit a positive response on the participant.

- b. The pre and post survey need to be taken in a controlled location in which students are given a chance to relax and cool down (from their field trip/activities) in order to provide accurate reflections of their opinions of the program. Provide some type of incentive for parents to fill out and return to the survey.

Currently, the post-surveys are being taken on the school bus right after the student have spent a long day hiking and learning outside. By giving the children to cool down, it will ensure more focus and attentiveness in answering the questions. Cognitive and Affective Learning in Outdoor Education (see Literature Review, pg. 13) provided surveys three times during the program - prior to commencing the program, after the completion of the program, and a third time weeks after the completion. The first two surveys were administered in a controlled setting where the focus was on the surveys and instructors were on site to ensure the surveys were completed. Outside Las Vegas can dedicate some time during their field trips or classroom instruction days to focus solely on

completing the surveys. This would ensure surveys are fully completed (full name and full answers) and any questions the participants have can be answered which would prevent incomplete and/or invalid responses. During the data analysis process, concerns that were presented were that there was a lack of responses and the drop rate from the modules was more than 50%. Improved survey instruments will strengthen OLVF's data collection process for building clear understanding on how programs operate because the more surveys completed fully, the better and accurate the data analysis will be.

2. The pre- and post-survey need to be better facilitated through the coordinators and staff of the program. (supported by Parent Survey results and Observation with OLVF staff, Cheresa Tiang)

Based on our interview with Cheresa and the limited analytical results from low responses to our survey, it was seen that many of the pre- and post-surveys completed by the children were either lacking a name, unable to read because the penmanship was too light, or questions were left unanswered. Due to these criteria, there was a 64% drop rate in Module 1 and a 63% drop rate in Module 2. A simple solution to this problem can come through asking the facilitators of these surveys to spend more time instructing the children how to properly complete the surveys, while also chaperoning the process to ensure that the children are following instruction.

3. Incentives given to parents and students participating in the program is needed so that all surveys (pre, post, and parent) can be fully completed.

In Youth Development Outcomes of Camp Experience (Literature Review, pg. 15), the participants were provided with incentives to complete all three of the surveys. The pre-camp survey participants were provided with a “new 2 dollar bill” at the completion of the survey. After the post-survey, the participants and their parents completed surveys and were provided \$5 as an incentive. Lastly, when the families completed the last survey they were again provided with \$5 for their participation. This approach made it possible for the researchers to obtain a large sample of surveys - 5,281 for the pre-survey, 3,400 for the post-survey and lastly 2,294 for the second post-survey six months after the completion of the program. Outside Las Vegas will benefit from providing incentives which can be in the form of money, gift cards, and/or prizes to ensure successful completion of surveys by both the participants and their parents both pre-camp and after the camp. These incentives can be either purchased by OLVF using grant funding and/or donated through in-kind donations from local businesses that are interested in supporting their mission. This is a short term recommendation with available funding. If Outside Las Vegas does not have the available funding to provide such large incentives, even rewarding the students with stickers as a good job for completing the survey or a printed certificate to present to the parent that the child did well in the program is a small but rewarding incentive for one to place a review for the program.

4. An additional survey given to the participants two to three months after the program ends should be given to assess the overall satisfaction of the program.

A common theme during the literature review of outdoor learning programs was the administration of a third set of surveys to both the participants and their families. Cognitive and Affective Learning in Outdoor Education (Literature Review, pg. 13) administered a third set of surveys two weeks after the completion of the program. Effects of Outdoor Education Programs for Children in California (Literature Review, pg. 9) administered their surveys six to ten weeks after the completion of the program. These survey results were useful to the organizations in providing concrete quantitative data supporting the maintained increases in cognitive learning by the participants. This data is significant to the organizations partners and funders because it demonstrates not only the immediate successes of the program but also that these successes are maintained long-term providing life lasting benefits to the participants that will enhance their quality of life. In order for OLVF to continue its mission it must be diligent in exploring additional funding opportunities to continue to operate their programs and plan for growth and expansion. Collecting the data mentioned above will provide OLVF a competitive edge in the community and with funders by demonstrating that the benefits of their programs not only provide immediate results but long lasting life skills and knowledge.

### Mid Term

1. Outside Las Vegas needs to incorporate more outdoor learning activities than in-class learning of environmental and science topics.

According to our literature review (Effects of Outdoor Education Programs for Children in California, pg. 9), outdoor learning benefits social and personal skills, stewardship of the environment, knowledge and understanding of scientific concepts, and benefits for ELL students. Learning outside provides a hands-on learning experience with authentic experiences. All of the organizations in our benchmark study (Appalachian Mountain Club, Colorado Mountain Club, Thorne Nature Experience - see page 25) have a majority of their learning activities with hands-on learning activities for the children to engage in. Additionally, according to our survey data, even though the question “I like spending time outside” showed a slight decrease in positivity, the questions regarding if they liked spending time at a specific destination such as Red Rock or the Wetlands park showed a positive shift in the share (going from 45% saying yes to 56% saying yes), with a 27% increase in positive answers. The similar situation is seen with the Wetlands - an increase in children’s attitudes with the field trips with a slight correlation in the amount of responses that went up because of the incorporation of an outdoor, interpretive field trip. Incorporating more outdoor learning activities is a mid-term goal because Outside Las Vegas would still need to make the appropriate relationships with locations in the Las Vegas Valley in order to provide the environment and supplemental learning material to engage kids in learning.

2. If sit down, in-class modules are still necessary, Outside Las Vegas needs to find a way to make the in-class segment more appealing to children to focus more on the topics of modules and keeping them more engaged.

Through our benchmark study of the National Park/YMCA Summer Camp in Point Bonita (See page 34), their method of having children participate in hands-on activities and fields trip before synthesizing their newly found knowledge was highly stressed as a key factor to the success of the program. Through their experiences, the children are much more engaged and involved with the lessons when learning is acquired through hands-on experiences. Participation is more actively involved into field trips rather more than in-class learning. As seen with Team B.A.R.K's visit to Heinrich YMCA during Module 3, some students did not participate in class activities, and some did not stay for the entire session. Although this was just an observation, the trend that if some students do not participate with current instruction, this might increase as class sizes get larger but the curriculum stays the same. The in-class instruction needs to focus more on the importance of connecting the topics discussed with the local environment in Las Vegas. According to the data, the students clearly connect to the idea of protecting the parks and feeling connected to their local attractions (Red Rock Canyon and the Clark County Wetlands Park, see question 4 for both Module 1 and 2). The modules could use that as a building point to create more engaging programs, by tying the instruction more closely to local/personalized need for caring about the outdoors and science. This would match Outside Las



Vegas' logic module of leading immersive experiences (for volunteers and youth of public lands) and present today's youth with everyday nature experiences they can constantly participate in Nevada (see Appendix A for the Logic Model of OLVF).

3. Outside Las Vegas needs to develop strategic partnerships with other organizations that have similar programs and/or mission statements.

OLVF currently has a great partnership with local municipalities and the YMCA to administer their programs and provide outdoor and volunteer opportunities to its participants. However, there still is a plenty of opportunities to reach a larger demographic when they partner with more organizations throughout the community, such as the Springs Preserve, the Nevada State Museum, the Discovery Children's Museum, that have the same mission and goals and/or administer similar programs for youth. By partnering with larger organizations, these organizations can not only help with funding, but spreading the word on what Outside Las Vegas is trying to accomplish. Other than large organizations, even planning with other nonprofits such as Friends of Nevada Wilderness, Green Our Planet, and Green Chips, can help provide Outside Las Vegas the strong collaborative partnership they need to sustain their programming.

The Nonquon Outdoor Center in California is an organization that provides outdoor learning opportunities to youth in its community (Literature Review, pg. 13). They have developed partnerships with the local school district as well as other local non-profit organizations that service youth allowing them to have a

large pool of participants on an ongoing basis. In addition, partnering with local non-profit organizations that serve youth will allow them to garner best practices in their field as well as feedback from organizations that encounter similar issues and/or problems with recruiting youth, administering their programs and providing quality data. Lastly, staying connected within the community will open up new opportunities to partner with agencies that complement their programs and mission.

4. Outside Las Vegas should collaborate and partner up with Title 1 schools to gain government funding.

From the literature review, a way to expand the footprint and reach of the summer program could be through partnerships with Title 1 schools. Outdoor Education Centre began expanding their reach by targeting teachers within those schools. They were able to do this through attendance in school meet and greets, similar to Communities in Schools, to show what they could offer students. Once they had built interest they targeted the teachers through an Invitation to Teachers. The teachers could sign up to participate in the program and by doing so would simultaneously expand the number of qualified instructors. Outside Las Vegas currently targets school youth, and only partners with schools in their Nature Ambassadors, After-School All Stars, and Formal CCSD Programming. If Outside Las Vegas can target schools through these program, but also incorporating their YMCA Informal Programming and moving it to a classroom setting can also show beneficial results.

5. An additional survey focus on the instructors or client (in this case YMCA) centered around kid's involvement in the program can provide qualitative information on how to improve the program.

According to the literature review, the Outdoor Environmental Education Program (Literature Review, pg. 8) provided the instructors with a pre and post survey to help measure student involvement. This helped that organization gain understanding, from the instructor's perspective, as to what sections of instruction were engaging to the students.

### Long Term

1. Outside Las Vegas should fully utilize empirical findings from data analysis in their quest to pursue more funding opportunities.

Currently the majority of Outside Las Vegas comes from private funders and the State. There is a vast majority of grant funding available both from community foundations and local and federal agencies. The National Parks/YMCA summer camp was able to collect funding from the “Let’s Move Outside Initiative” and The Department of the Interior based on their first year successes in the program and effective funding strategies (Benchmark Study, pg. 34). Local municipalities in Clark County have made youth development and supportive services a high priority for their agencies. This is an opportunity for OLVF to develop a long term funding strategy to obtain additional funding from diverse sources. Having a diverse budget will make OLVF more attractive to funders. In order to OLVF to become marketable to big funders they must collect and develop data that is

positive, accurate and significant and transform that data into demonstrated outcomes instead of outputs. By being able to demonstrate the positive contribution to youth development and learning instead of just providing numbers of attendees, and survey data they increase their capacity to obtain funding significant enough to grow their programs to their mission and vision goals.

2. The timing of field trips (season, time of day, duration of the trip) should be reevaluated in order for students to be more engaged in learning about the outdoors.

Data through the child surveys show a drop off in the children's want to be outside after participating in the field trip; for question 1 in Module 1, there is a 12% to 15% negative increase of participant's answers on if they like spending time outside. However, data also shows that these field trips have a positive effect and that the children are engaged during these outings (as seen with the 6% increase of children feeling attached to Red Rock and the 7% increase of students being connected to the Wetlands Park. Through Cheresa's observations during these field trips, the summer heat of Las Vegas caused many of the children to complain about being outside. Scheduling these field trips or module program later in the year should alleviate those problems.

3. Outside Las Vegas needs to consider restructuring curriculum for their learning modules. Instruction of the modules should be a full week (about 5 days) of instruction, rather than just meeting once a week.

Outside Las Vegas' current schedule consists of a one one-hour visitation per module lesson. Most of the other programs within our benchmark study however,

incorporate multiple class sessions throughout the week to instill the lessons that they are teaching and retain the interest levels of their children. Instruction of the modules should be a full week (about 5 days) of instruction, rather than just meeting once a week. The A Mountain Classroom program for example, has a partnership with participating schools, where the program provides teachers with environmental lessons to incorporate into their lesson plans throughout the week (Benchmark Study, pg. 25). From their experiences and observations from the teachers, this method played a great part in keeping children engaged in the environmental material being taught. Thorne Nature Experience's In-School program also saw improved interest levels simply by converting from a one-time meeting into a three session program, further highlighting the fact that additional meetings aid in engaging children to the material (Benchmark Study, pg. 32). If Outside Las Vegas can extend their current YMCA Program even by a couple of days, it could see improvement as A Mountain Classroom and Thorne Nature Experience did. Limitations are the need for more staffing and added curriculum, but this may be a good thing because it will incorporate more concepts Outside Las Vegas may not cover in the one in-class instruction or field trip excursion.

4. Outside Las Vegas should build stronger communication channels with parents and strengthen marketing effort.

Programs in the literature review provided a one-page flyer that briefly explained the programs and the expected results to potential donors. This allows those programs to provide potential donors and potential future partners with a clear

understanding of what their programs are trying to achieve and how they could get involved or help. Based on responses through the parent survey, Outside Las Vegas needs to build a more structured program based on environmental education. Based on some of the qualitative information gleaned from the parental surveys, Outside Las Vegas may want to create and outline of the module instruction to make available to the parents of the students. This would provide parents with a clear understanding of the subject being taught and may provide the parents a reason to recommend the program to friends with children. Outside Las Vegas currently has a number of education programs (more than 10 additional program to the YMCA Education Program) that focus on providing different opportunities to students in the Las Vegas Valley. Most of the organizations in our benchmark study (see page 25) either have one to three education programs in which they focus on the structure of the curriculum or is simple to explain to their audience and participants. All of the organizations in our benchmark study include pamphlets and flyers with numbers of the demographics they reach, the percentage of satisfaction through environmental learning, and outcomes of the program. Outside Las Vegas should provide a fact sheet of the program to show parents the outcomes of the program so parents are not weary of what their children will be participating in. By having set objectives in the curriculum, Outside Las Vegas' overall education program will be strengthened.

5. Outside Las Vegas should develop a volunteer program to provide them supplement support for their in-class modules and/or field trips. Through this they can expand the capacity of the overall program.

All of the benchmark study organizations are successful in their management of the participants during outdoor activities due to the support and participation of community volunteers (Benchmark Stud, pg. 27). Outside Las Vegas does not currently have an adequate number of volunteers that are available to assist during field trips; they have the AmeriCorp members, but members of the Las Vegas community interested in the outdoors and science can provide input and ideas for curriculum, lectures, and activities. OLVF works with a young group of children who require constant supervision, attention, and engagement. Having volunteers would help alleviate instructor distractions and allow them to focus on the teaching their lessons in a structured manner. Additionally, this can fulfill OLVF's community needs of spreading community connectedness and reaching out to the demographics through volunteerism.

## Conclusion

Team B.A.R.K. saw many trends in all the organization that we reviewed, beside Outside Las Vegas. Environmental education program can succeed in moving values and changing behaviors in the direction of STEM programing, sustainability and environmental conservation intense researching, planning, and dedication is put into the program. Many organization that we saw that were a little older than Outside Las Vegas' YMCA program was able to succeed

through funding, collaborations within the community, and outreach. If Outside Las Vegas can dedicate these three themes and mesh them with their goals presented in their logic model, in the long term, this program can provide influential and impacting results to the children of Las Vegas. Las Vegas has the environment to provide adventures in learning and show children the beauty of the natural desert.

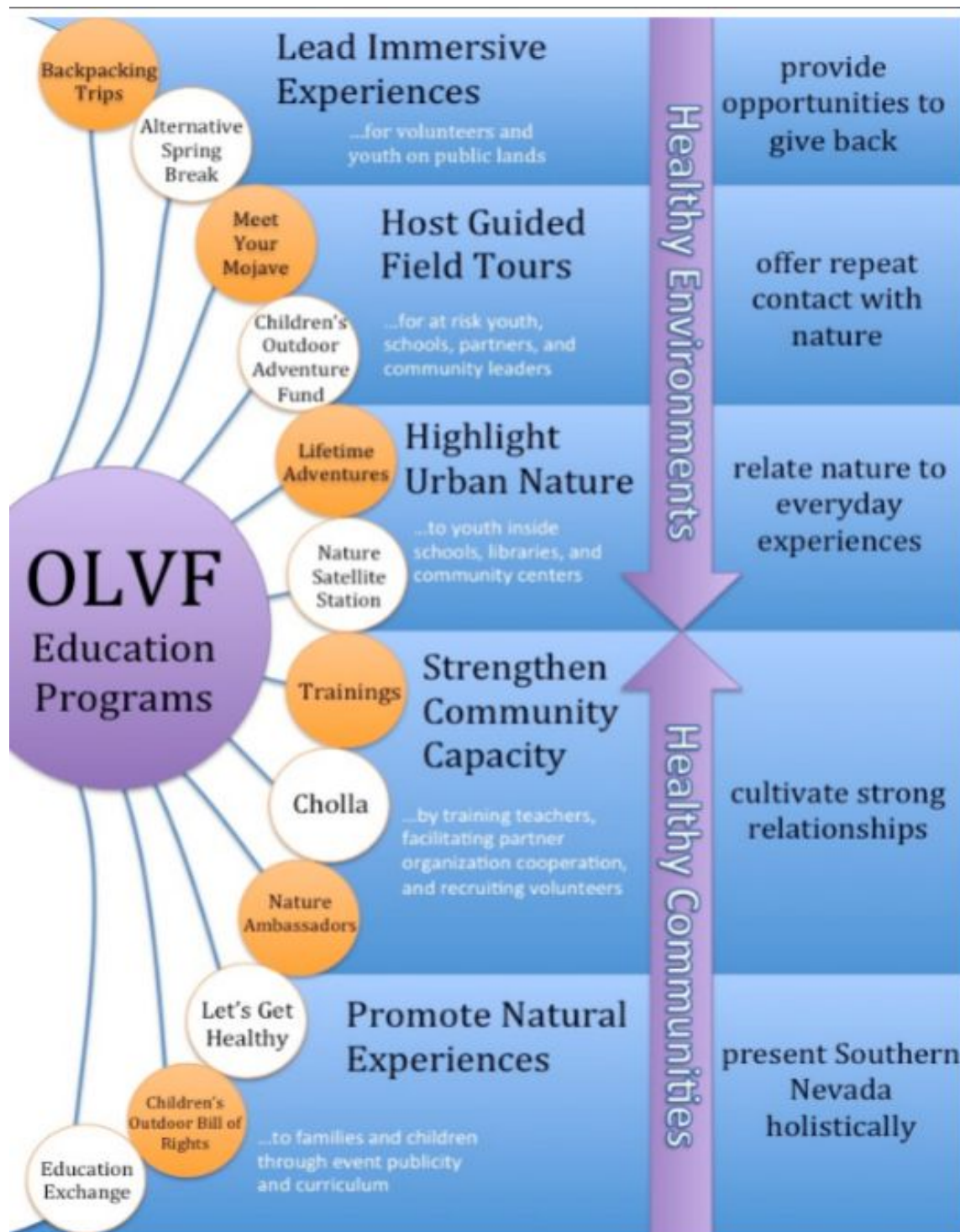
According to English writer Evelyn Waugh, “If a thing’s worth doing at all, it’s worth doing well.” The importance and validity of program evaluations, despite the increased cost, can benefit the organization if effectiveness is one of their prime goals. Outside Las Vegas has a good, pure mission they want to instill not only to children, but to the community with all that they do for Las Vegas. Team B.A.R.K. believes that the evolution of design and delivery Outside Las Vegas can perform can show immaculate results and get the funding they need to do so. With this program evaluation, Outside Las Vegas may take our recommendations and data findings and incorporate it into their education programming and use this information to show funders that their programming can work with due time.



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## Appendix A: OLVF Logic Model &amp; List of Programs



## Appendix A-2: Outside Las Vegas Logic Model Summary

In 2014, OLVF received private funding that allowed the organization to support 27 field trips for 1,278 people and over 150 programs that reached over 19,000 people.

In 2015, the program received public and private funding. Public funding was directed to OLVF through an agreement with the National Park Service. As a result of this funding, OLVF was able to retain two full-time employees and support a strengthened field trip program. The combination of public/private support resulted in almost three times the number of field trips in 2015 – with 80 field trips connecting 3000 young people to outdoor experiences. In addition, the number of programs almost doubled from 150 programs to 277 programs introducing over 23,000 people to Nevada's outdoors. Likewise, 66% of Mojave Education Program participants were at risk in 2015.

As a result, OLVF is increasingly sought out both by groups interested in benefitting from field trips and informal education programs, and by potential private funders seeking to match public dollars. Current program recipients include the After-School All-Stars, Boys & Girls Clubs of Southern Nevada, Big Brothers Big Sisters of Southern Nevada, YMCA of Southern Nevada, the Embracing Project, Nevada Childhood Cancer Foundation, Nevada Partnership for Homeless Youth, and a number of Clark County School District schools.

### Proposal to Increase Quality of Life by Connecting Community to Public Lands

In order to further SNAP goals and meet community needs, OLVF proposes an education program that would be funded for a period of five (5) years and will support the shared goals and objectives of the SNAP partners.

By connecting the community to the natural environment through (1) Science Programs, (2) Career Programs, and (3) Field Trip Transportation Grants, OLVF can (a) improve science proficiency, (b) increase underrepresented audiences participation in public lands careers and events, (c) increase community understanding of the value of public lands, which will (SNPLMA Goal 2) improve the quality of life in Southern Nevada.

### Mojave Desert Education Program Goal

Improve the quality of life for urban and rural communities in Southern Nevada by enhancing recreational and educational opportunities to connect community with the environment.

### To Meet Program Goal OLVF will Generate the Following Program outputs:

#### ***Public Land Science Programs***

1. 200 programs per year
2. 20,000 people reached per year through programs



***Public Land Career Programs***

1. 10 youth internships provided per year
2. 10 career fairs per year
3. 2 trainings per year for volunteers and interns

***Public Land Field Trip Transportation Grants***

1. 2500 youth benefitting from field trips per year (through public / private support)
2. 25 community organizations connected to public lands.
3. 55 field trips funded to public lands

These outputs would result in the following community outcomes:

**Outcomes: The Mojave Desert Education Program will increase Quality of Life by:**

1. Increase community understanding, interest, and proficiency in Science, specifically areas of water use and conservation, habitats and land use, leave no trace, and climate change. (science programs)
2. Increase participation by underrepresented minority and female communities in Science and public lands careers pathways, and Science, Technology, Engineering, and Mathematics (STEM) programs and events through internships, volunteer events, and job shadowing opportunities. (career program)
3. Increase participant understanding of and exposure to the benefits of public lands. Specifically the community will see public lands as important for recreation, health and fitness, tourism, and the regional economy. (field trips)

**Mojave Desert Education Program Services**

1. Coordinate micro-grant program for field trips
2. Develop necessary policies and procedures (waivers, insurance, emergency plans)
3. Develop and maintain partnerships necessary for program (individuals and groups)
4. Design and implement educational programs
5. Conduct meetings, workshops, and training sessions
6. Provide equipment and materials for program
7. Provide record keeping and metric tracking for program
8. Maintain a database and consistent communication with SNAP agencies, community partners and the general public
9. Develop collateral materials that convey program goals to public
10. Provide public presentations
11. Serve as primary contact for public relations for program (press, social media, etc.)
12. Leverage private funds to enhance public investment
13. Provide written and oral reports on program



### **The Outside Las Vegas Foundation**

### **Mojave Education Program: Improving Quality of Life by Connecting the Community to Public Lands in Southern Nevada**

#### Program and Proposal Summary

The Outside Las Vegas Foundation (OLVF) respectfully submits the following proposal. OLVF proposes to continue a successful education program with a goal of “improve the quality of life in Southern Nevada by providing opportunities that connect people with the outdoor environment.”

In order to meet this goal, OLVF’s Mojave Education Program will connect the community to public lands through (1) Community Science Programs, (2) Community Career Programs, and (3) Field Trip Transportation Grants.

#### Community Need and Project Rationale

1. **Lack of Science Proficiency:** Southern Nevada as a region is failing in education, with a ranking of 50 out of 50 states. Only 50% of CCSD students were ranked as proficient in science in 2011, a development that the Brookings Institute reports has negative consequences for the local economy, as an insufficient number of Nevadans possess Science, Technology, Engineering and Mathematics (STEM) skills.
2. **Lack of Diversity in Science Programs and Careers:** Despite possessing more cultural diversity than average American cities; minorities, women, and at risk audiences are underrepresented in science programs, science careers, and visitation to public lands and National Parks.
3. **Lack of Community Connectedness:** Southern Nevada as a region possesses lower civic engagement and volunteer rates, higher levels of obesity, poorly developed public transportation options, and more resident transiency than other similar urban areas.

The Mojave Desert Education Program will specifically address all three of the above-identified issues by connecting the community to public lands through (1) Community Science Programs, (2) Community Career Programs, and (3) Field Trip Transportation Grants.

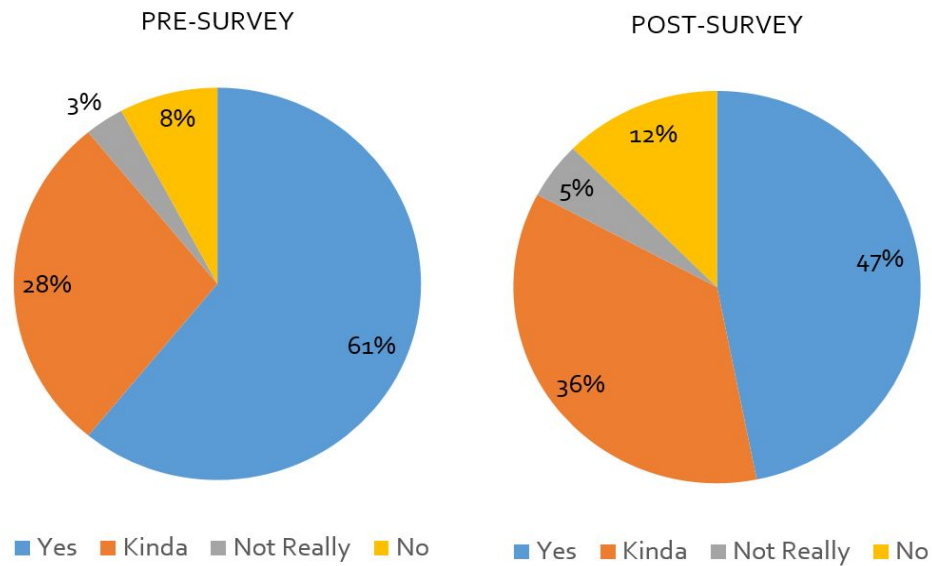
#### History of OLVF Mojave Desert Education Program

The Mojave Education Program, begun in 2014, integrates education about the public lands with topics that include STEM-related (Science, Technology, Engineering, and Mathematics) curriculum. The program began with field trips, and then extended into informal education programs.

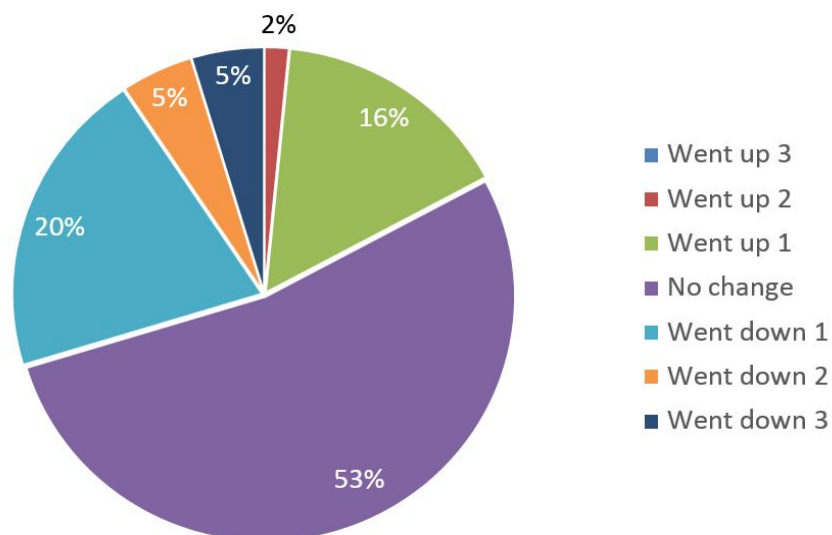
## Appendix B-1: Module 1 – Symbols & Rock Art Pre & Post Survey Analysis

Question 1:

I like to spend time outside.



I like to spend time outside.

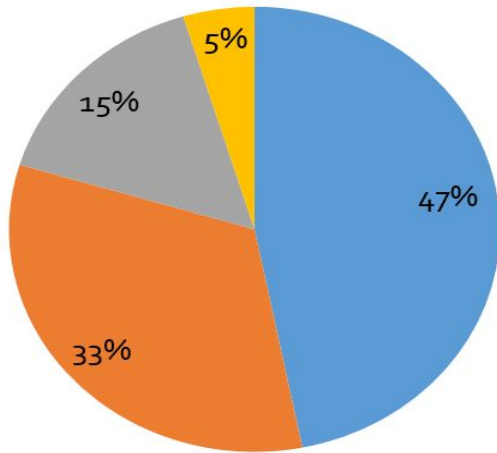




Question 2:

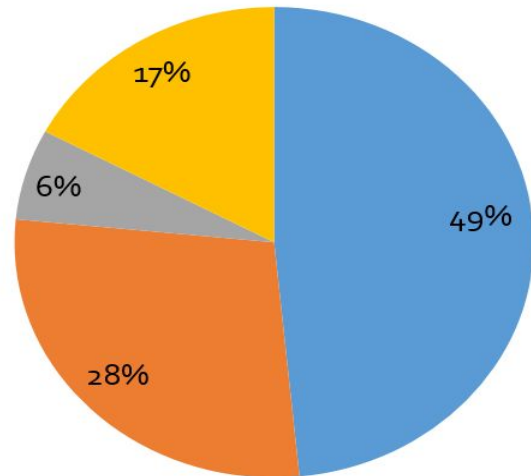
I feel healthy when I go outside.

PRE-SURVEY



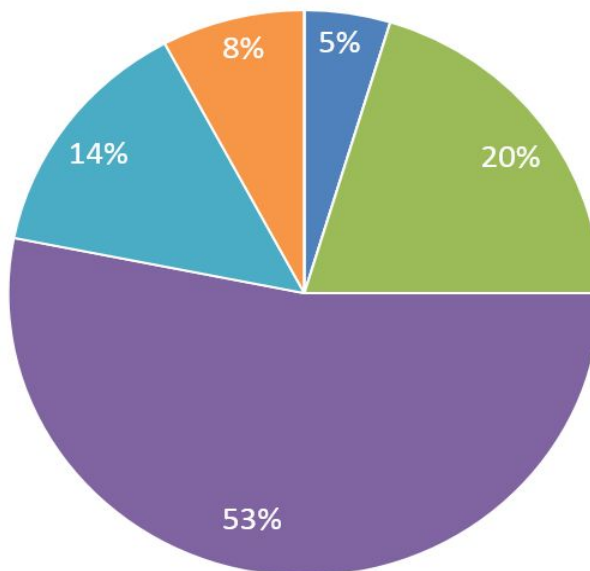
■ Yes ■ Kinda ■ Not Really ■ No

POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

I feel healthy when I go outside.

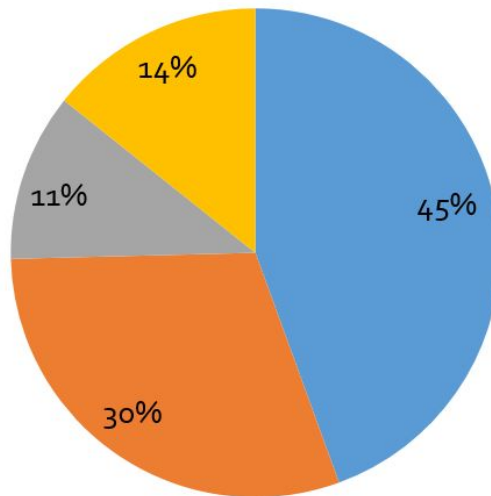


■ Went up 3  
 ■ Went up 2  
 ■ Went up 1  
 ■ No change  
 ■ Went down 1  
 ■ Went down 2  
 ■ Went down 3

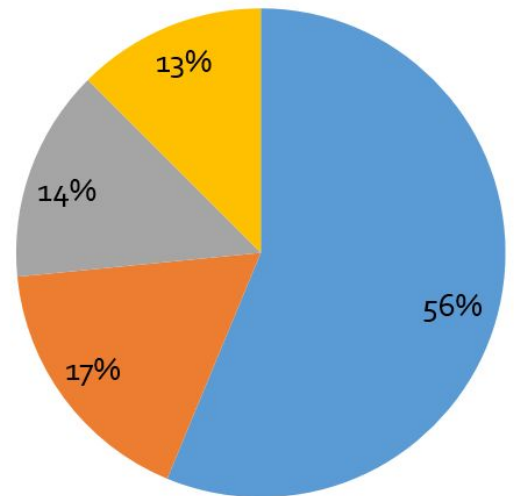
Question 3:

I like science about nature.

PRE-SURVEY



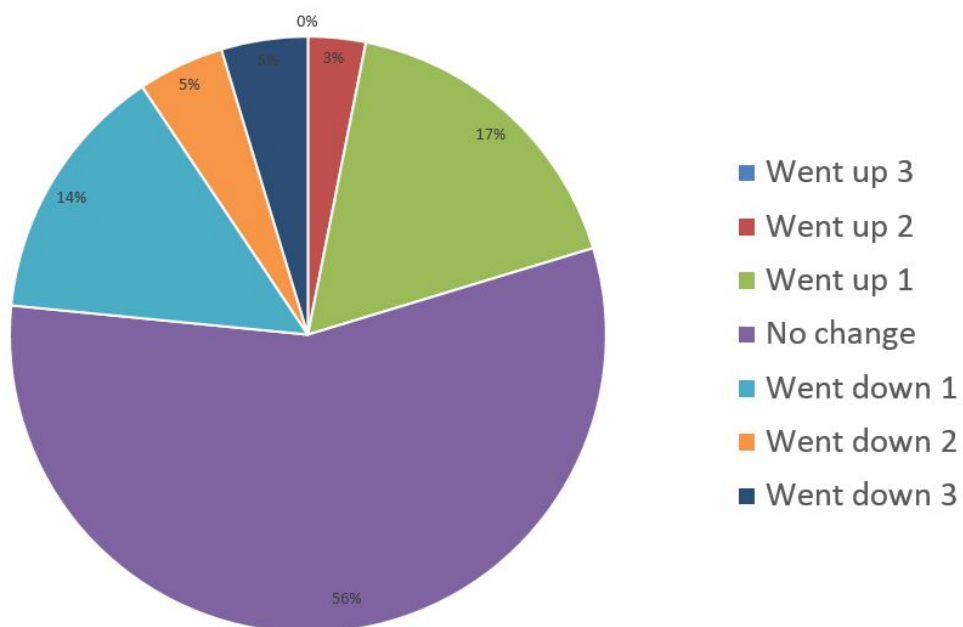
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

I like science about nature.



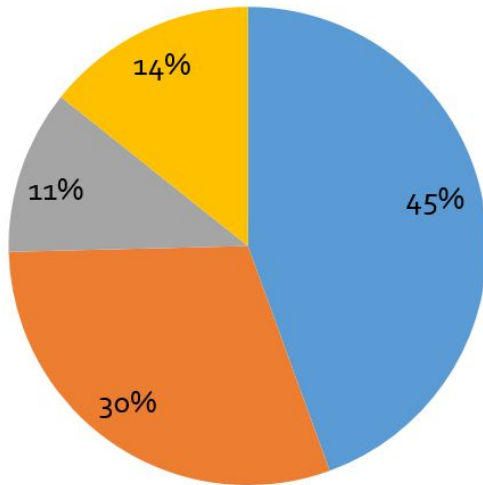
■ Went up 3  
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 ■ Went down 3



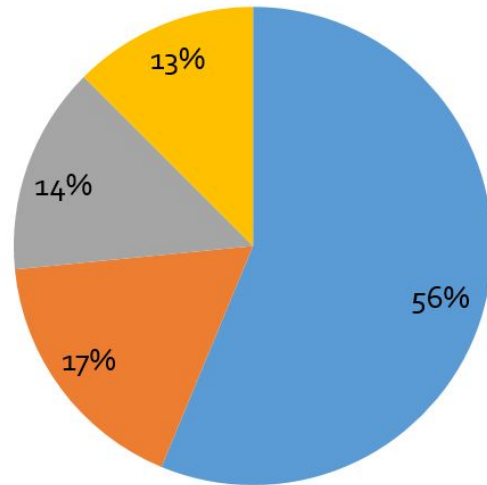
Question 4:

I am attached to Red Rock Canyon.

PRE-SURVEY



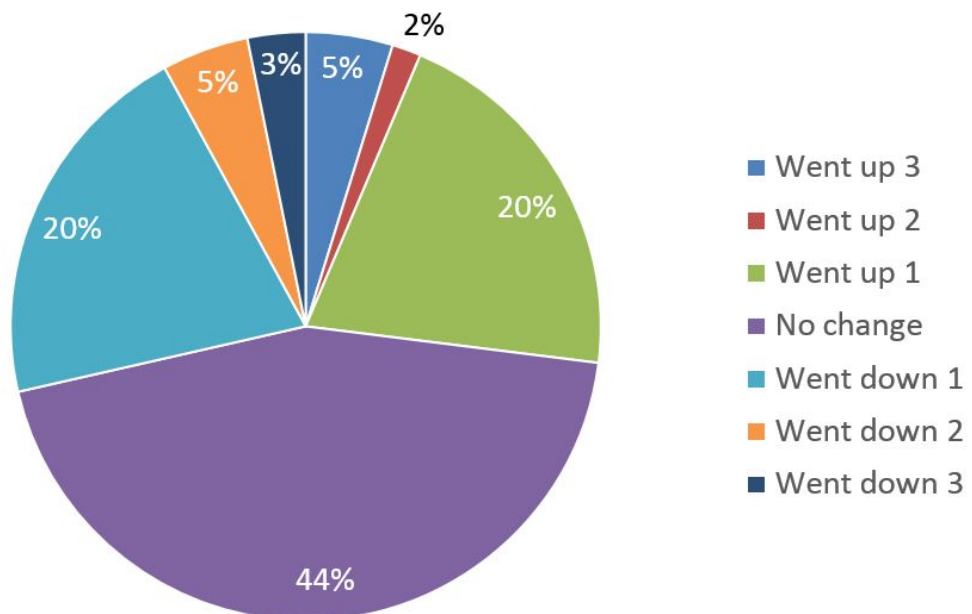
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

I am attached to Red Rock Canyon.

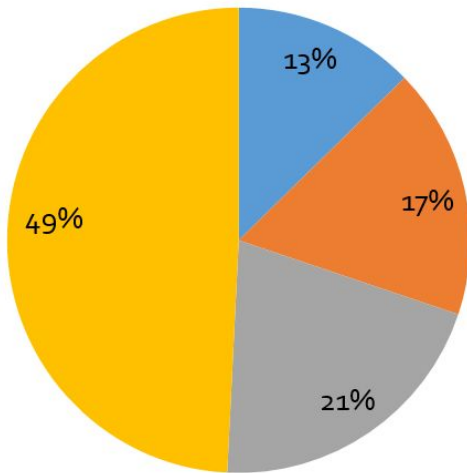


■ Went up 3  
 ■ Went up 2  
 ■ Went up 1  
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 ■ Went down 1  
 ■ Went down 2  
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Question 5:

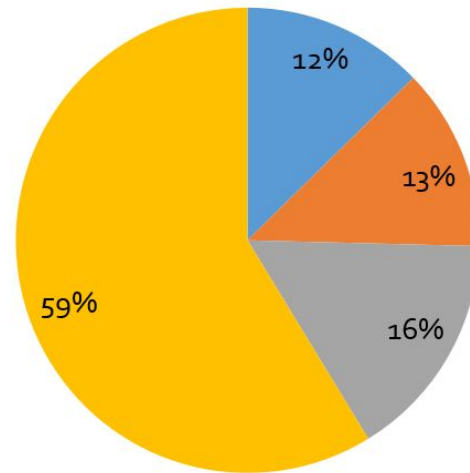
I would like to work at a park when I grow up.

PRE-SURVEY



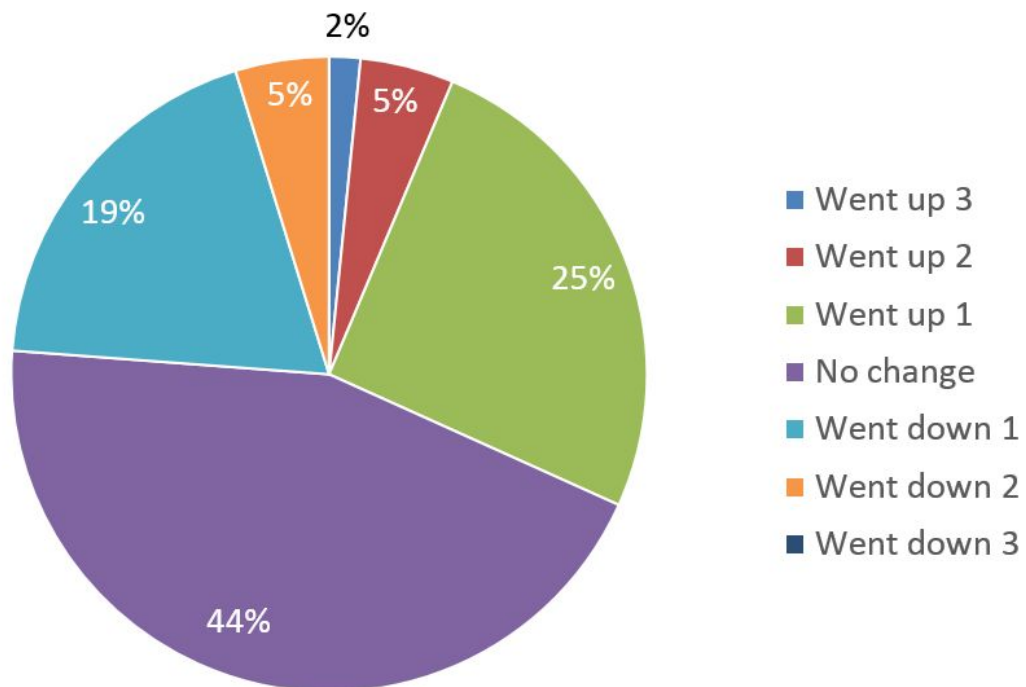
■ Yes ■ Kinda ■ Not Really ■ No

POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

I would like to work at a park when I grow up.

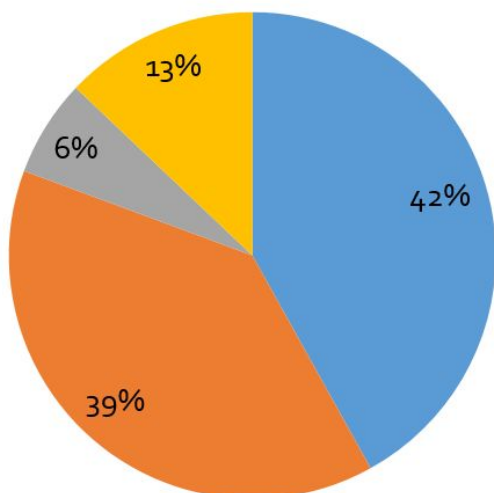


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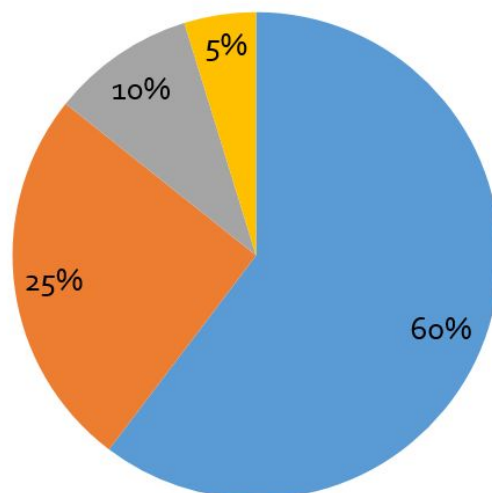
Question 6:

## Parks protect history.

PRE-SURVEY



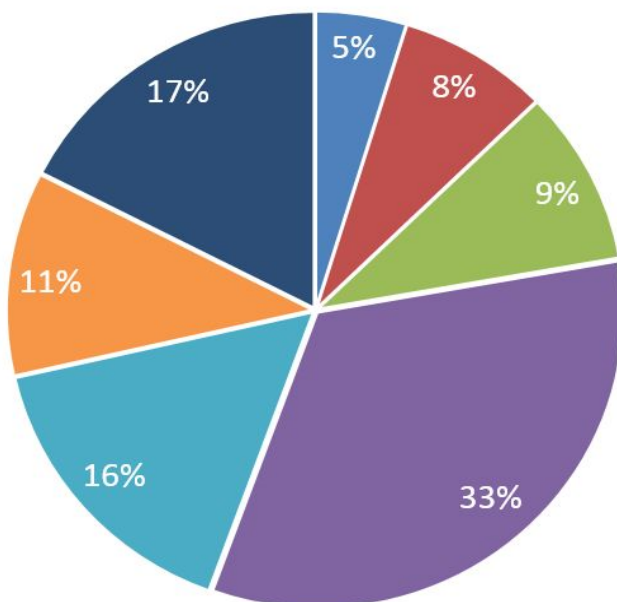
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

## Parks protect history.

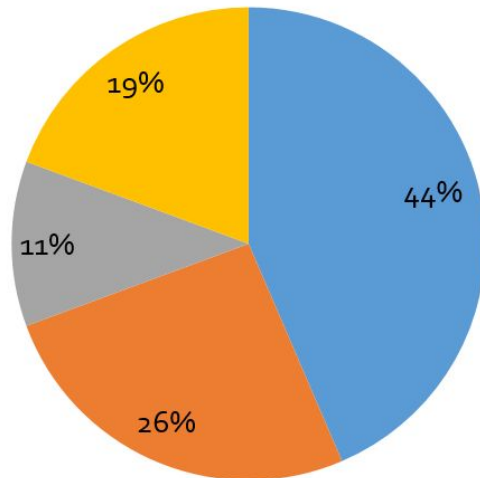


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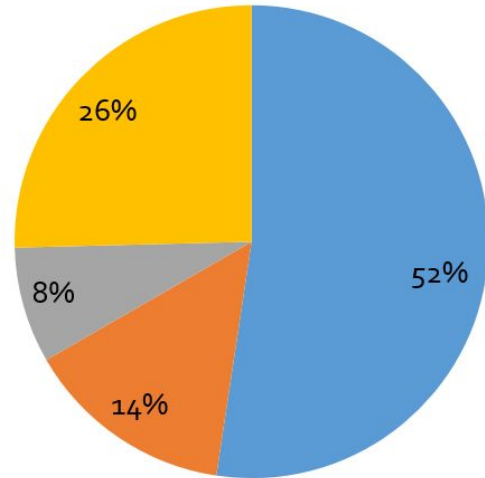
Question 7:

I set a new goal this week and achieved it!

PRE-SURVEY



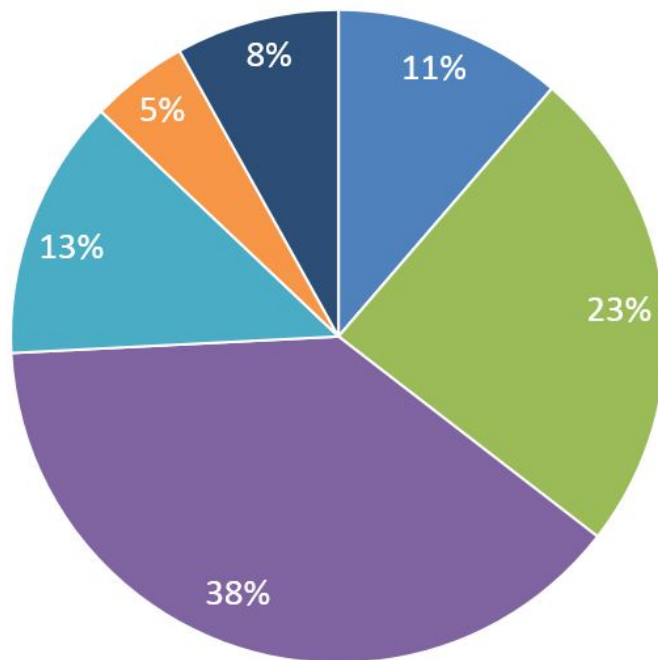
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

I set a new goal this week and achieved it!

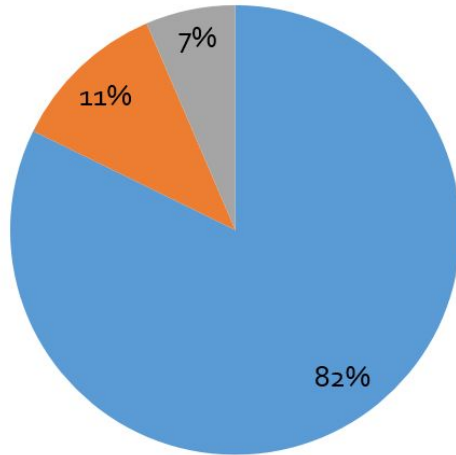


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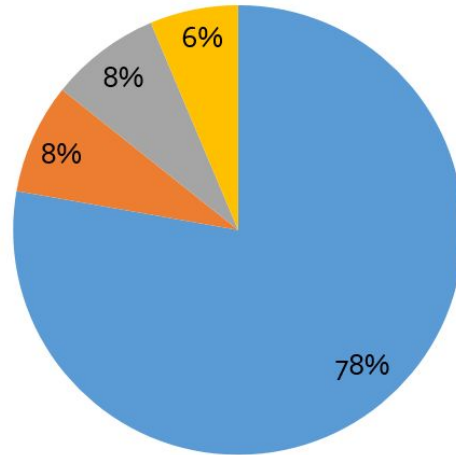
Question 8:

## I have made new friends at the Y Camp!

PRE-SURVEY



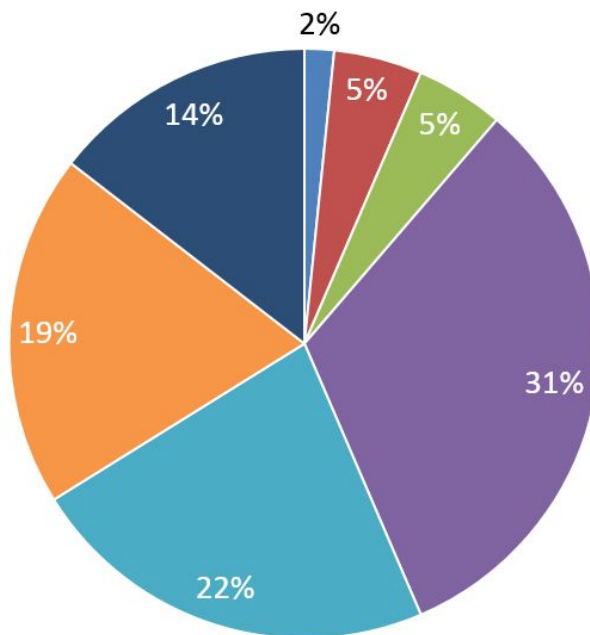
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

## I have made new friends at the Y Camp!

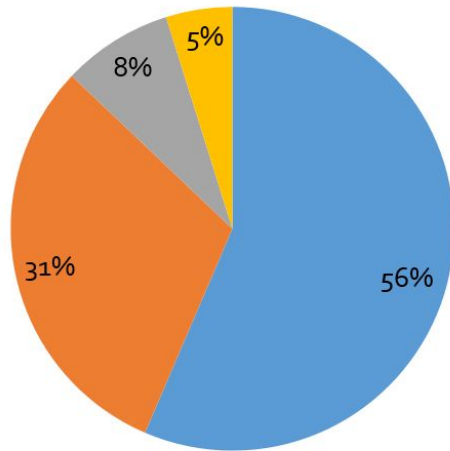


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 ■ Went down 2  
 ■ Went down 3

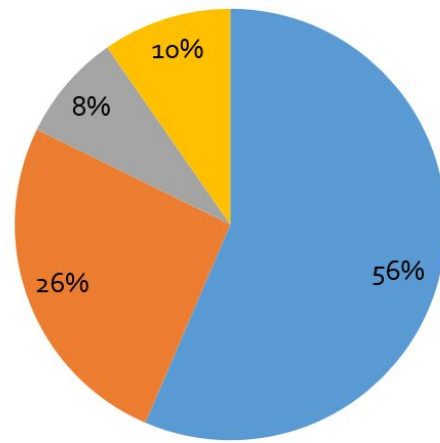
Question 9:

I can by myself at the Y. I belong here.

PRE-SURVEY



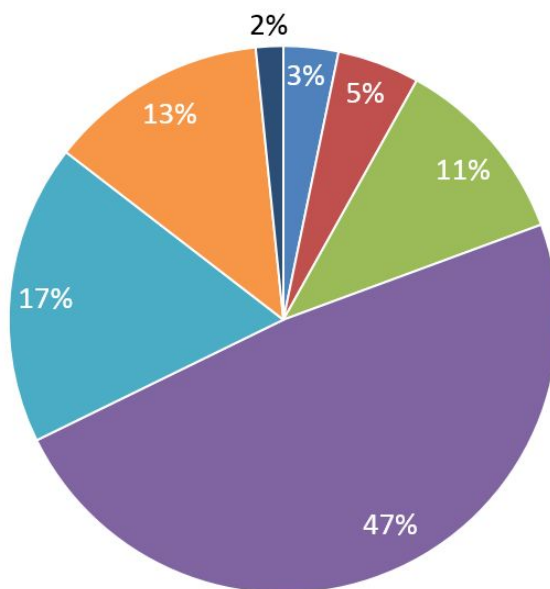
POST-SURVEY



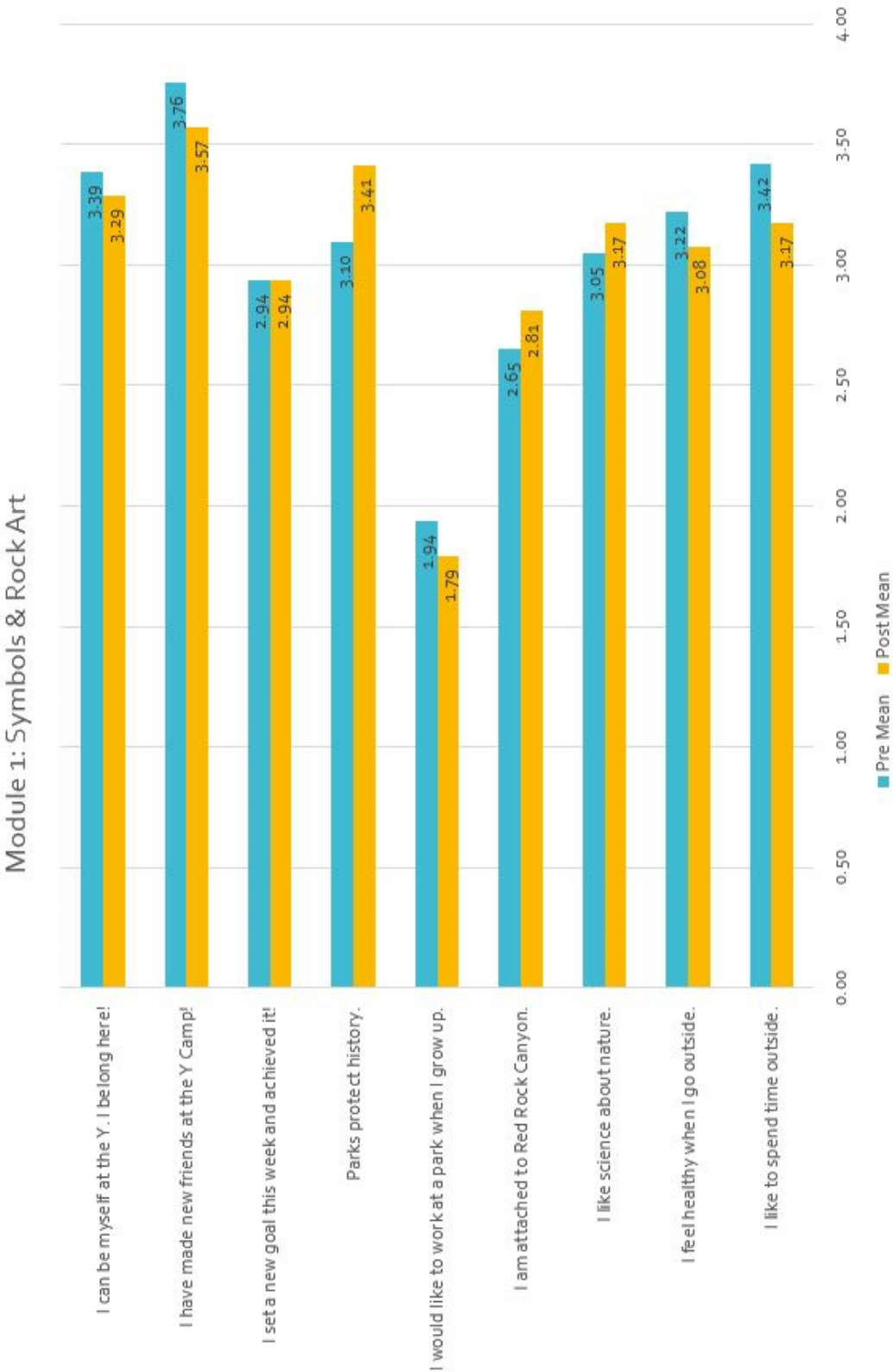
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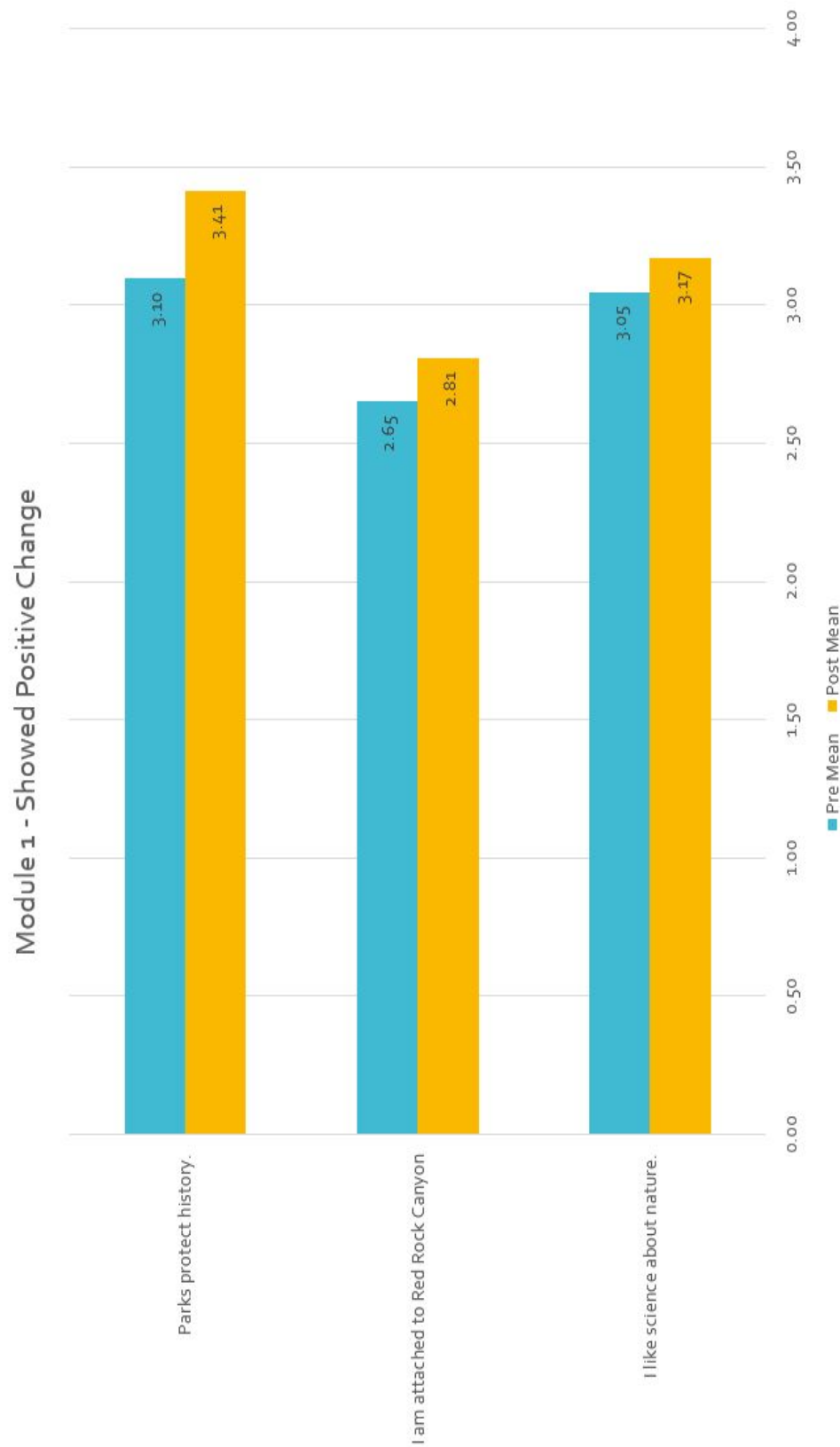
■ Yes ■ Kinda ■ Not Really ■ No

I can be myself at the Y. I belong here!

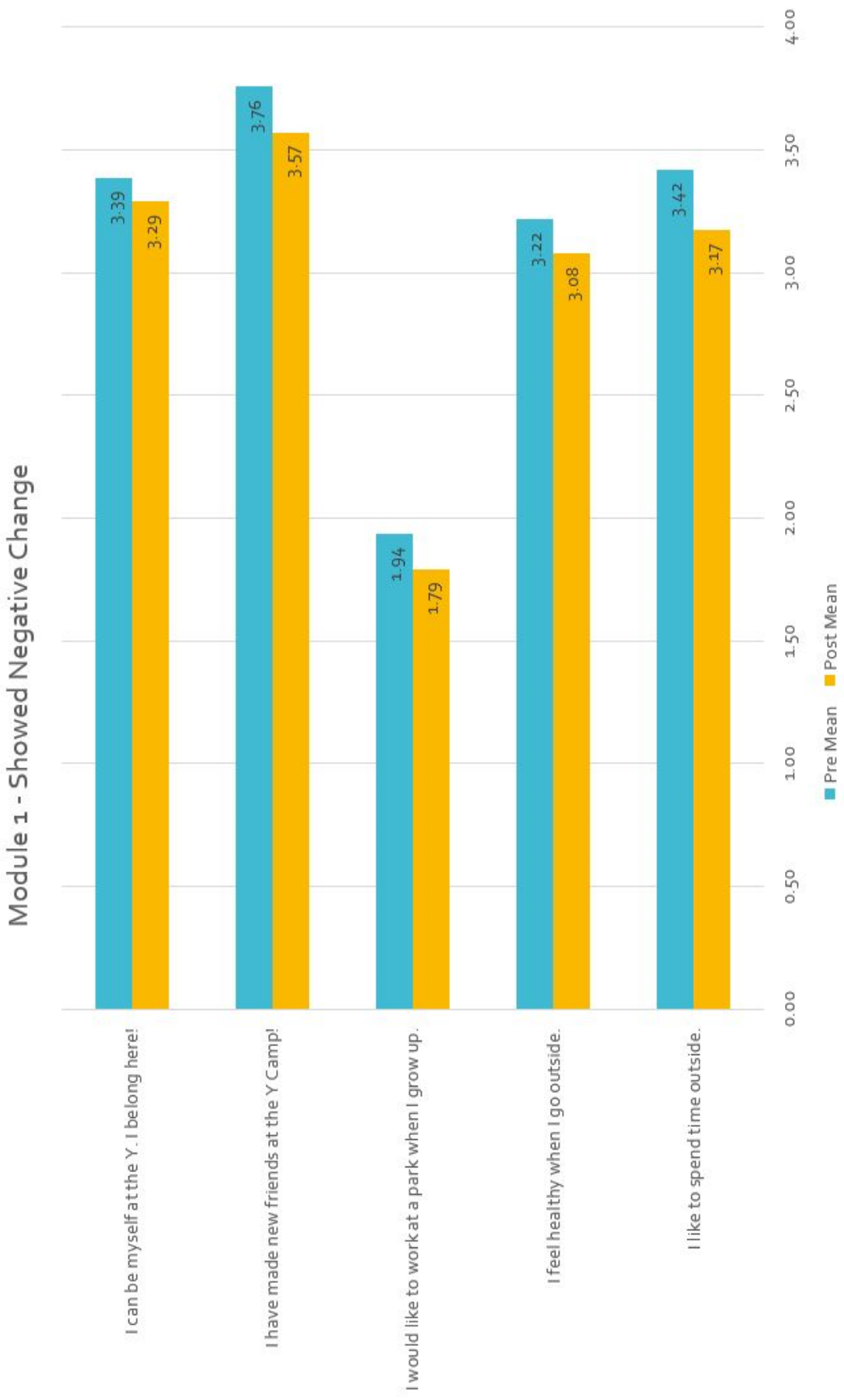


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 ■ Went down 3







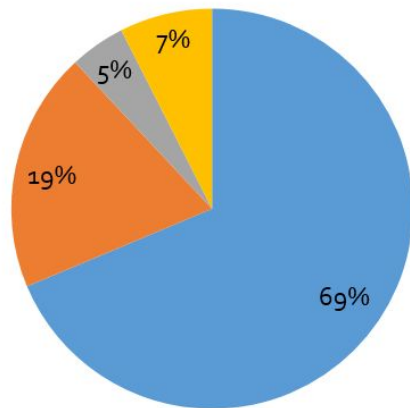


## Appendix B-2: Module 2 – Biodiversity and the Web of Life Pre & Post Survey Analysis

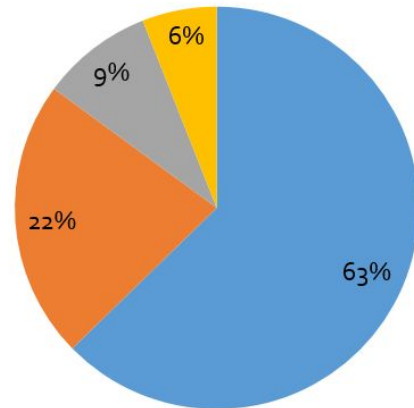
Question 1:

I like to spend time outside.

PRE-SURVEY



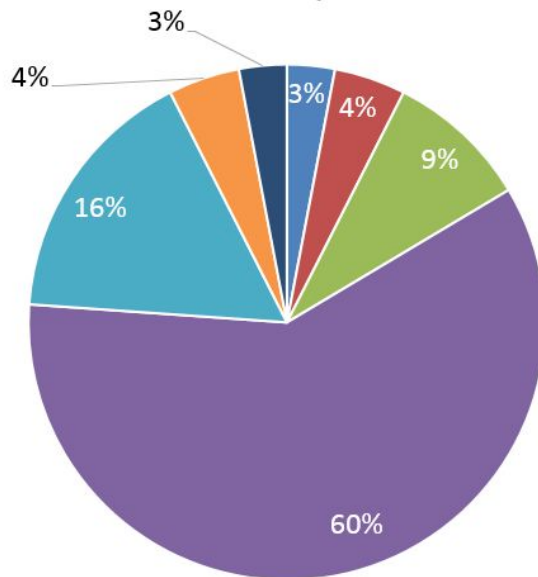
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

I like to spend time outside.

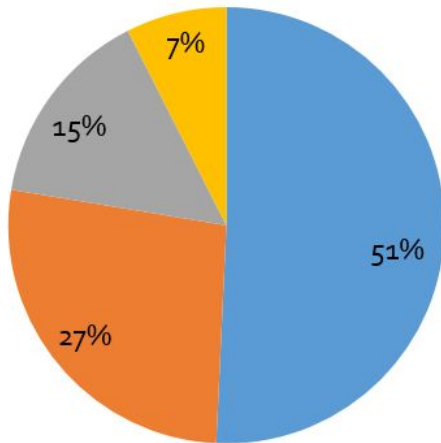


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 ■ Went down 3

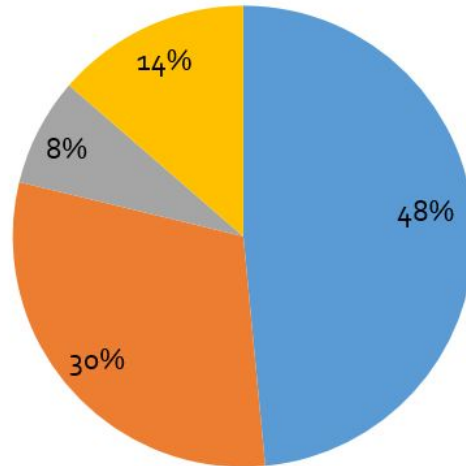
Question 2:

I feel healthy when I go outside.

PRE-SURVEY



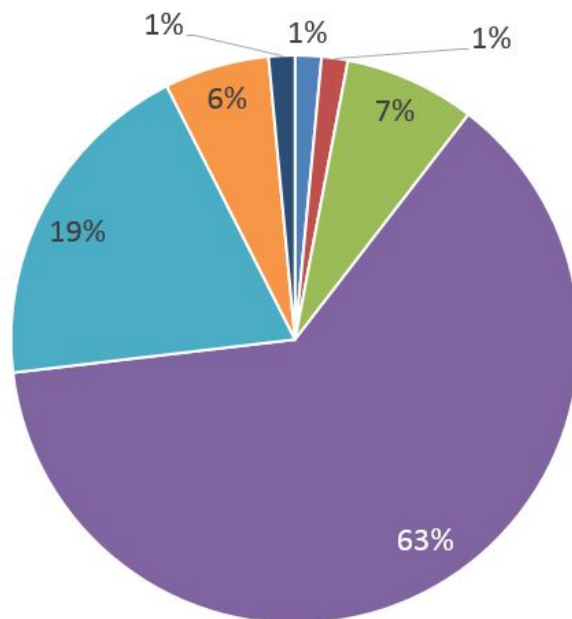
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

I feel healthy when I go outside.

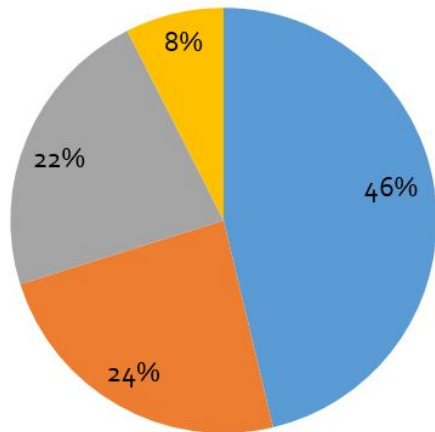


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■ Went down 1  
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■ Went down 3

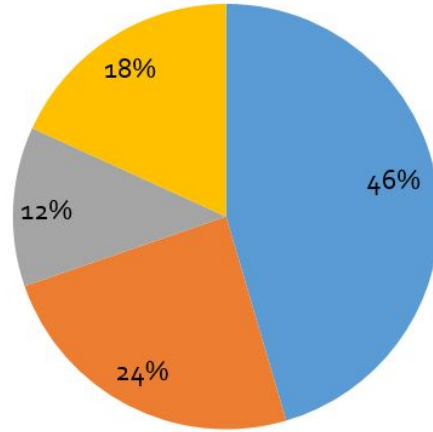
Question 3:

I like science about nature.

PRE-SURVEY



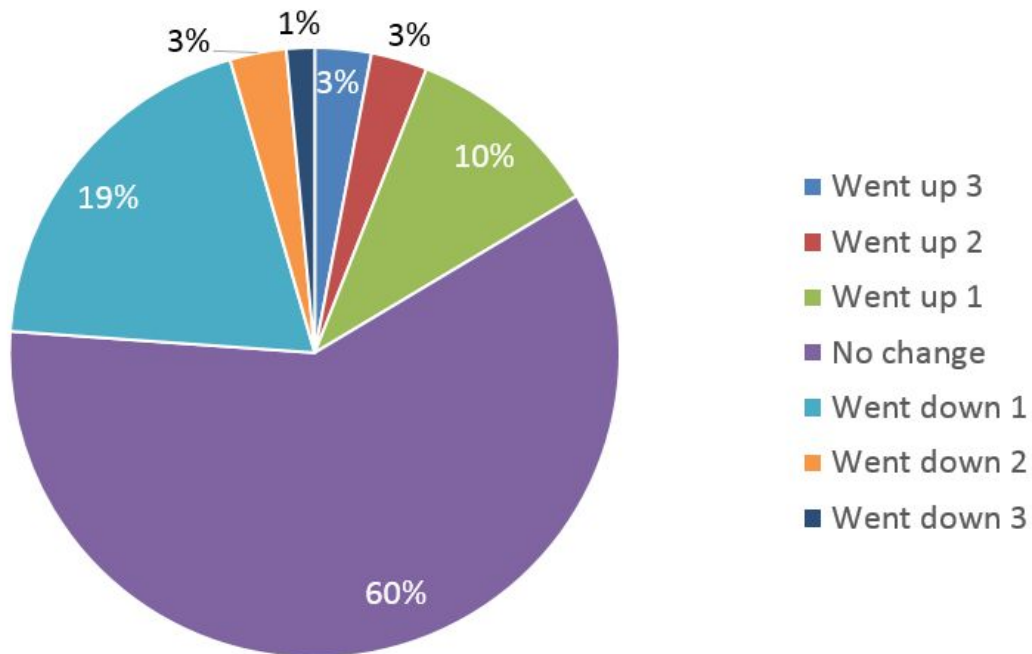
POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

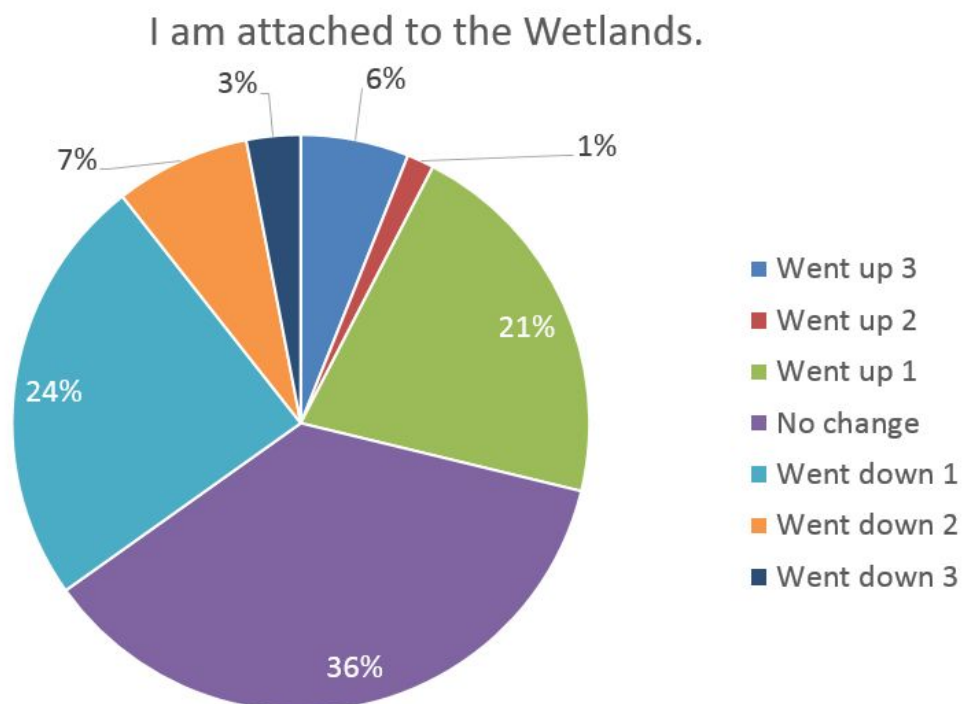
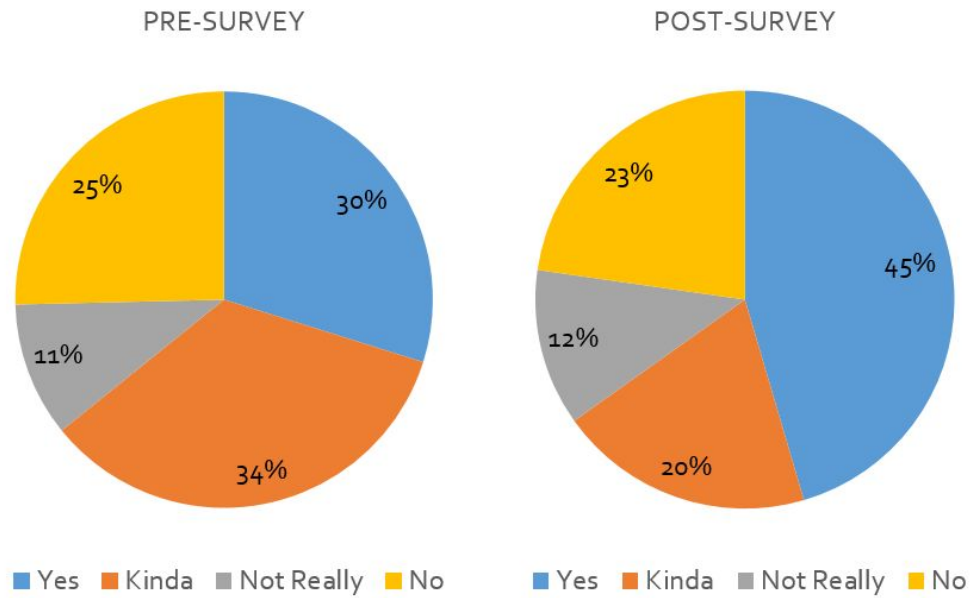
I like science about nature.



■ Went up 3  
 ■ Went up 2  
 ■ Went up 1  
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 ■ Went down 2  
 ■ Went down 3

Question 4:

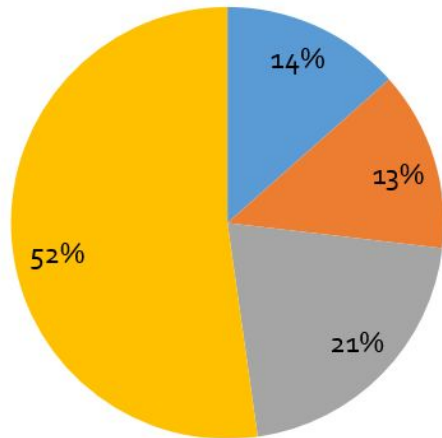
### I am attached to the Wetlands



Question 5:

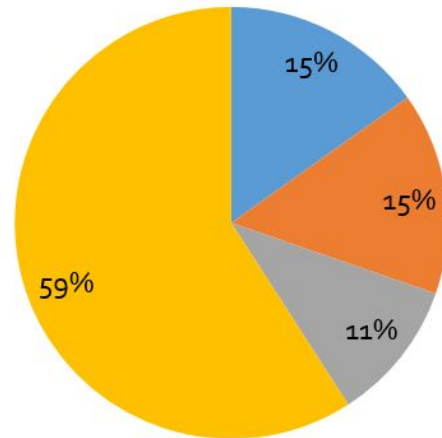
I would like to work at a park when I grown up.

PRE-SURVEY



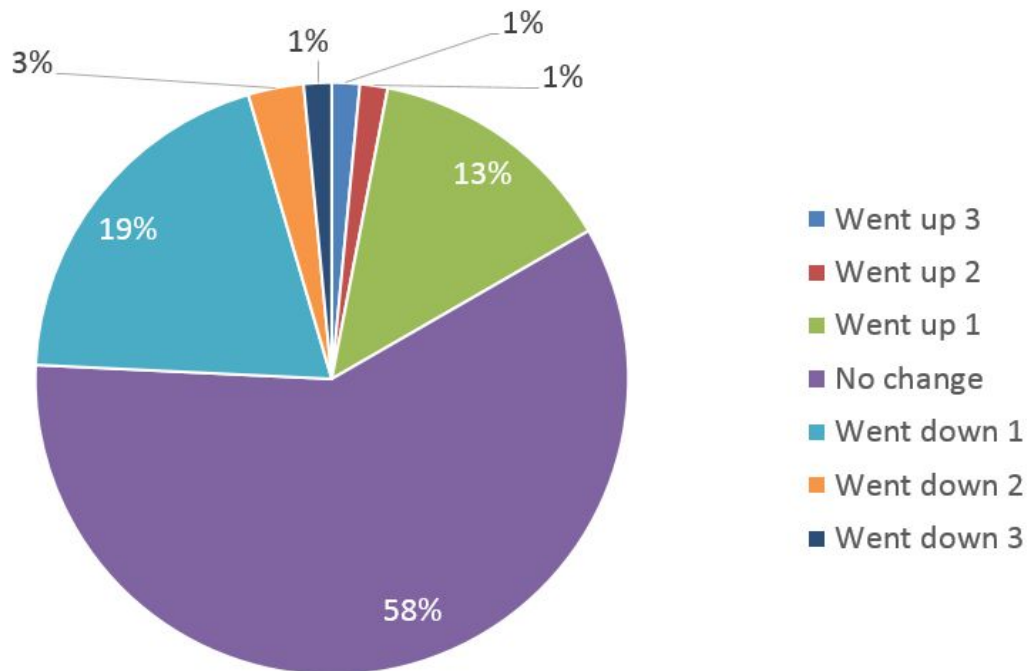
■ Yes ■ Kinda ■ Not Really ■ No

POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

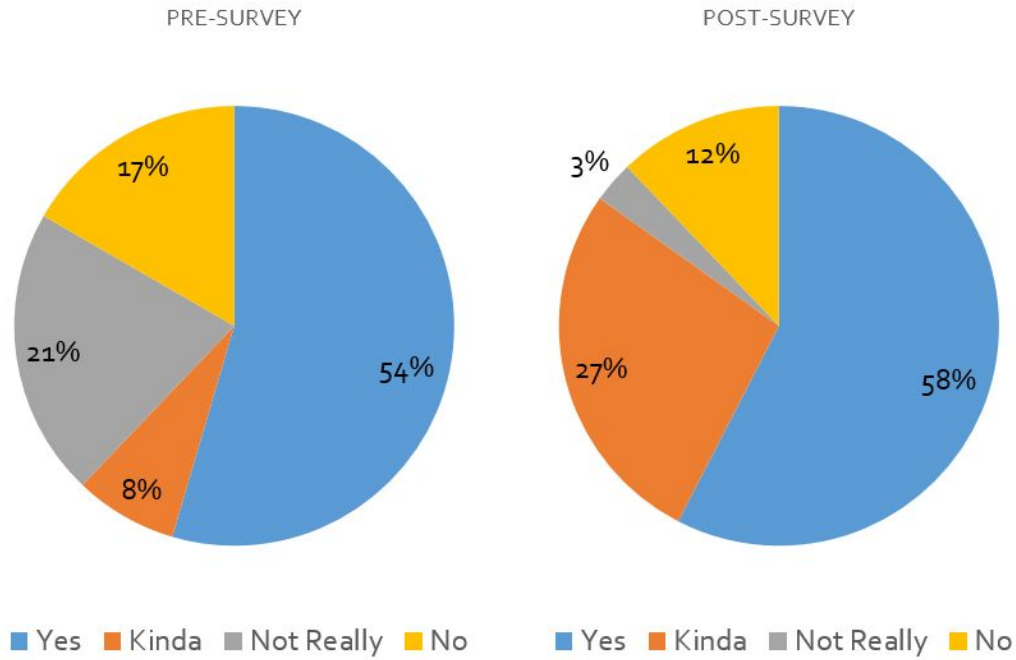
I would like to work at a park when I grow up



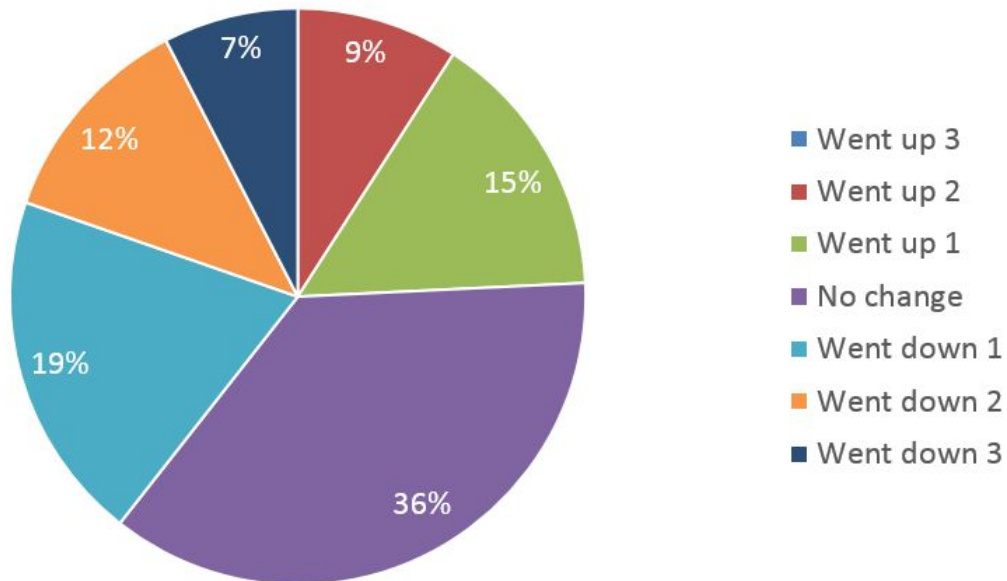
■ Went up 3  
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 ■ Went up 1  
 ■ No change  
 ■ Went down 1  
 ■ Went down 2  
 ■ Went down 3

Question 6:

All living things are connected.



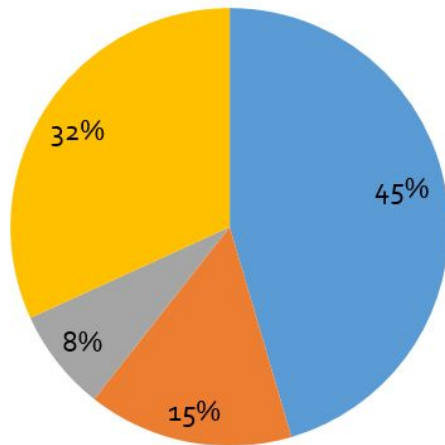
All living things are connected.



Question 7:

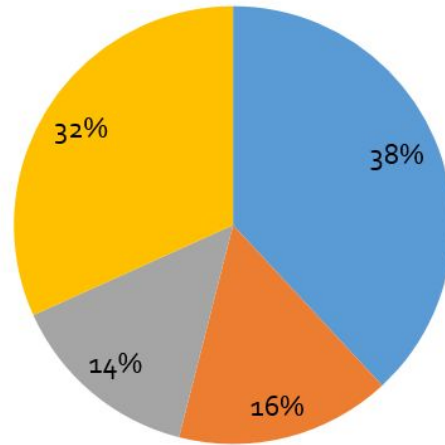
I set a new goal this week and achieved it!

PRE-SURVEY



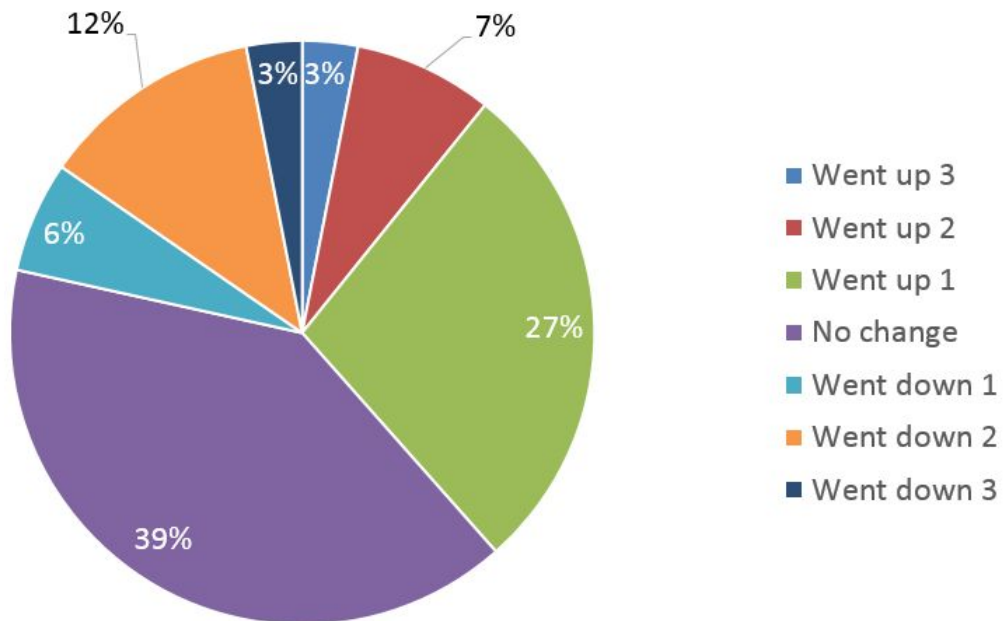
■ Yes ■ Kinda ■ Not Really ■ No

POST-SURVEY



■ Yes ■ Kinda ■ Not Really ■ No

I set a new goal this week and achieved it!

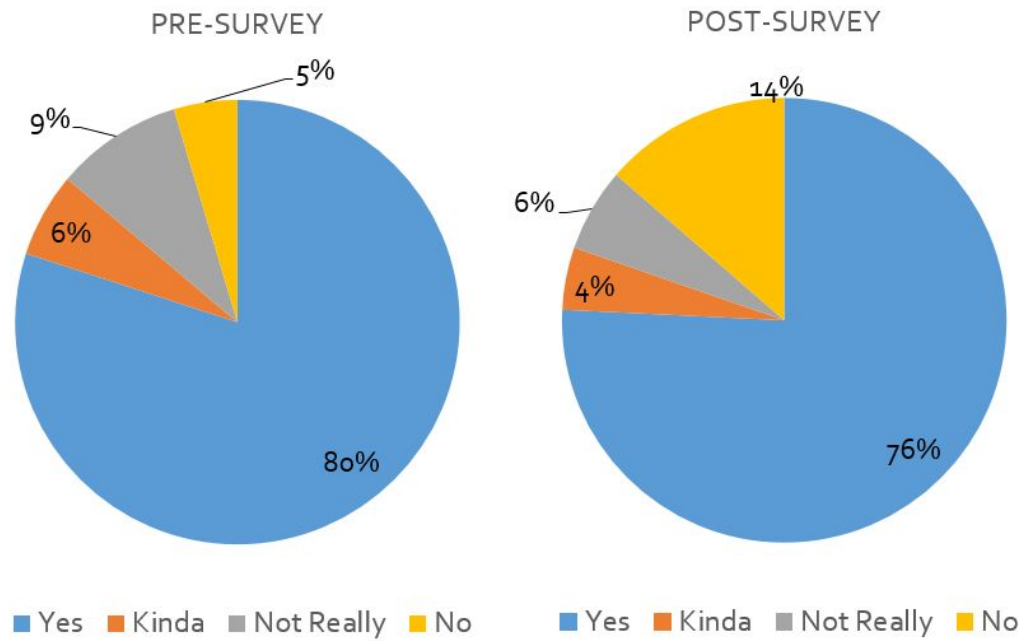


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 ■ No change  
 ■ Went down 1  
 ■ Went down 2  
 ■ Went down 3

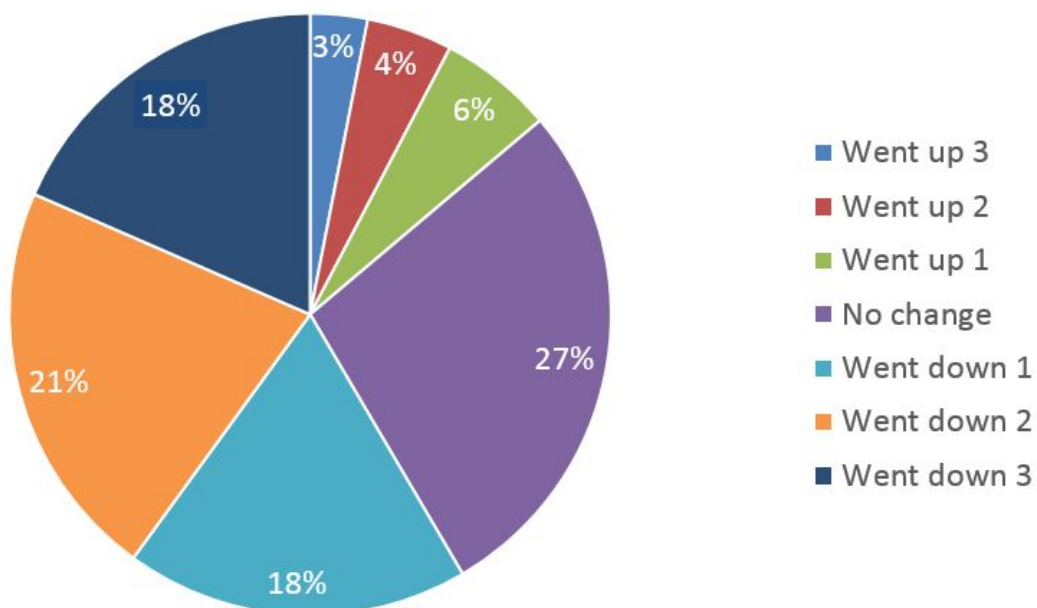


Question 8:

I have made new friends at the Y Camp!



I have made new friends at the Y Camp!

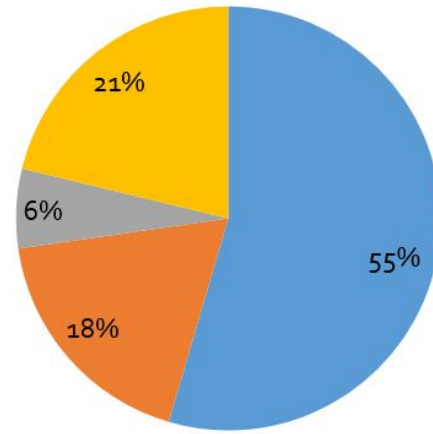
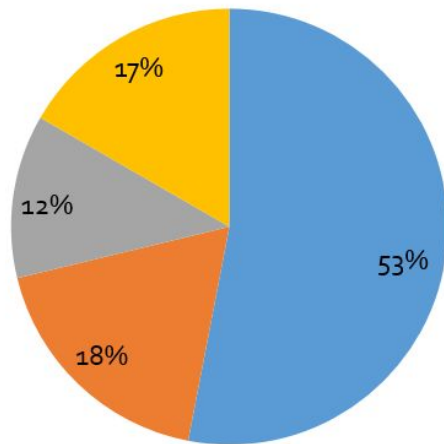


Question 9:

I can by myself at the Y. I belong here.

PRE-SURVEY

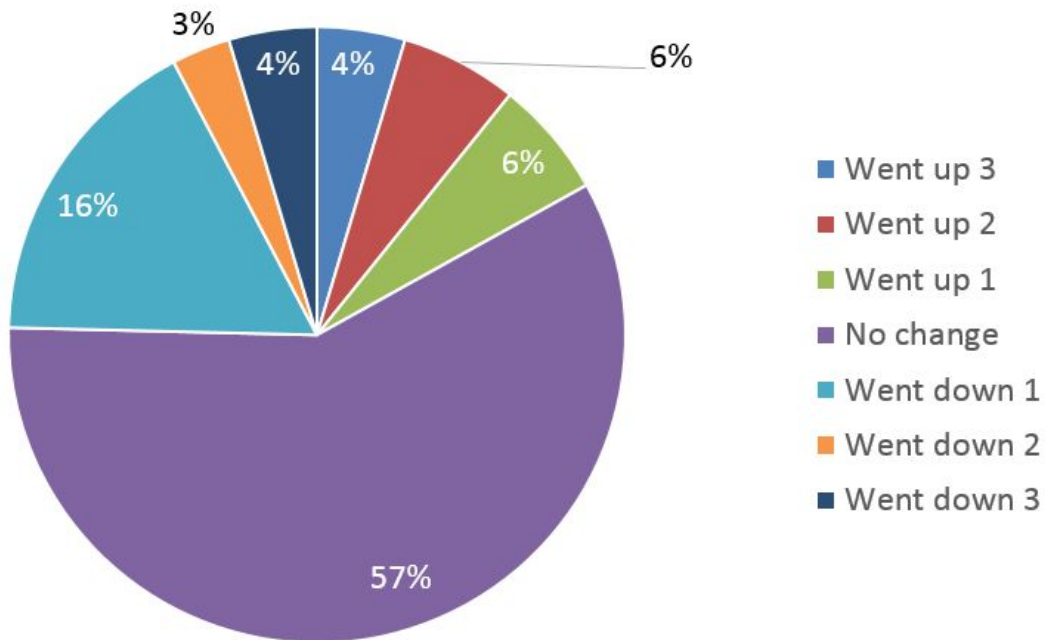
POST-SURVEY



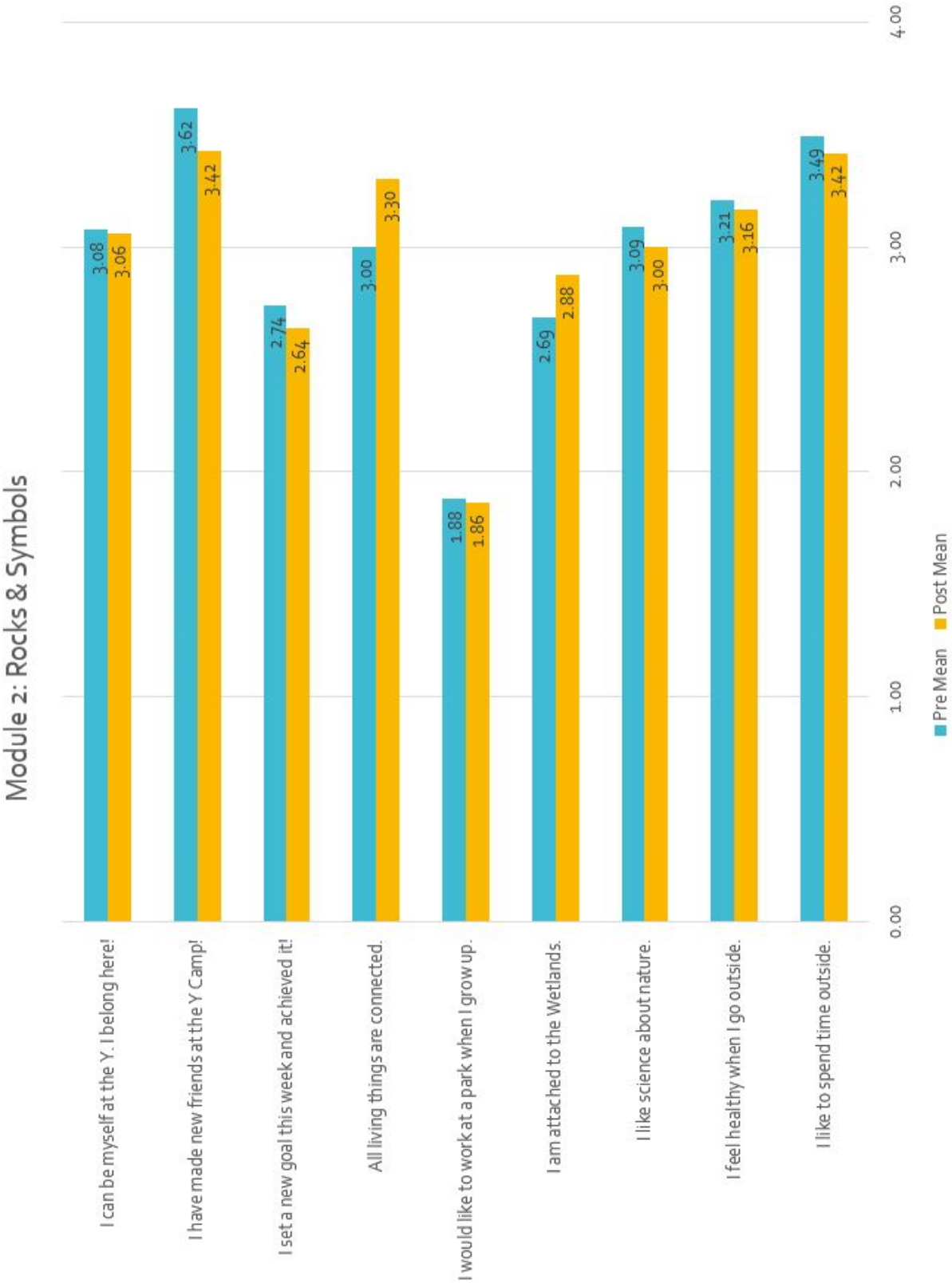
■ Yes ■ Kinda ■ Not Really ■ No

■ Yes ■ Kinda ■ Not Really ■ No

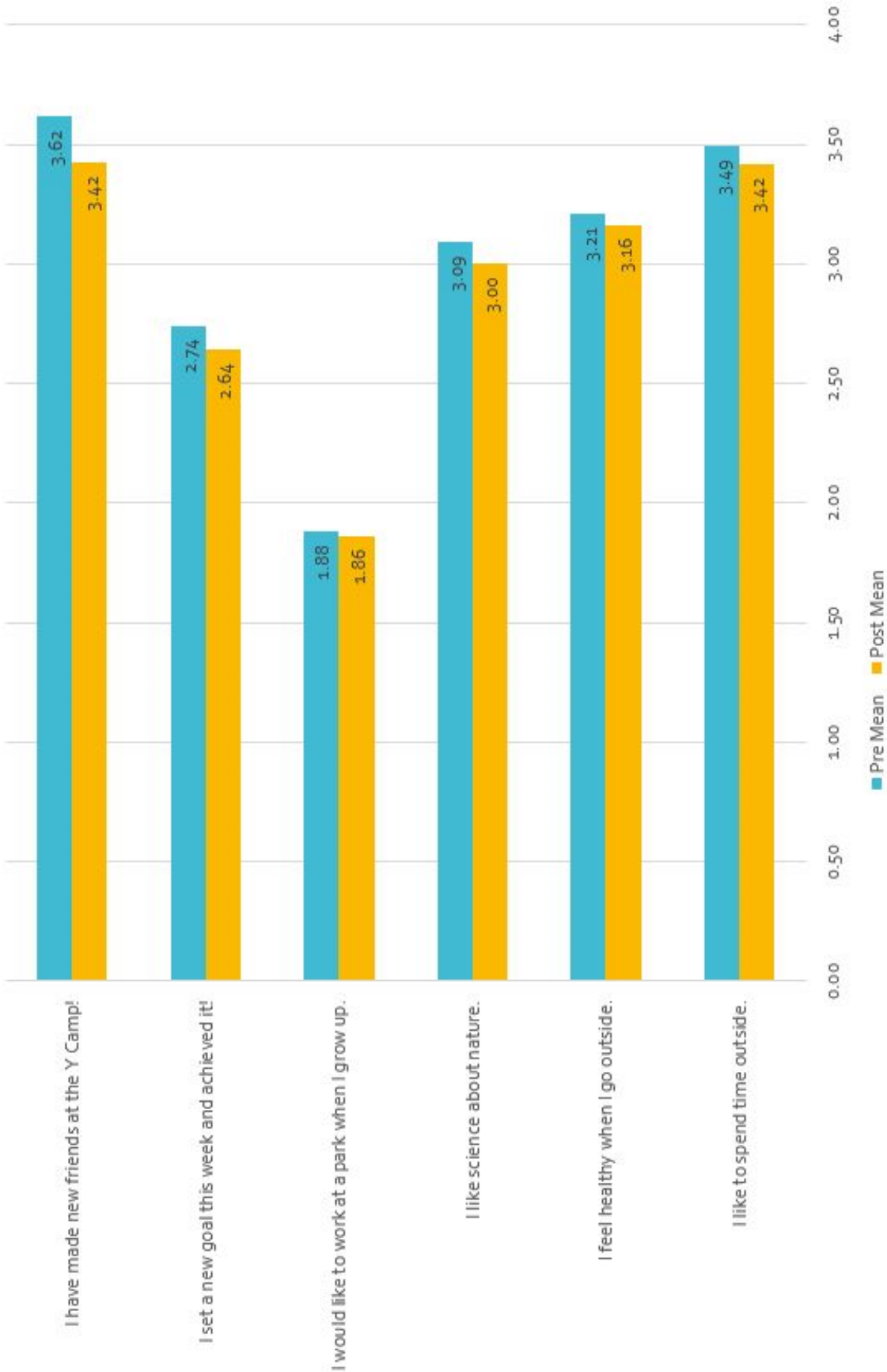
I can be myself at the Y. I belong here!

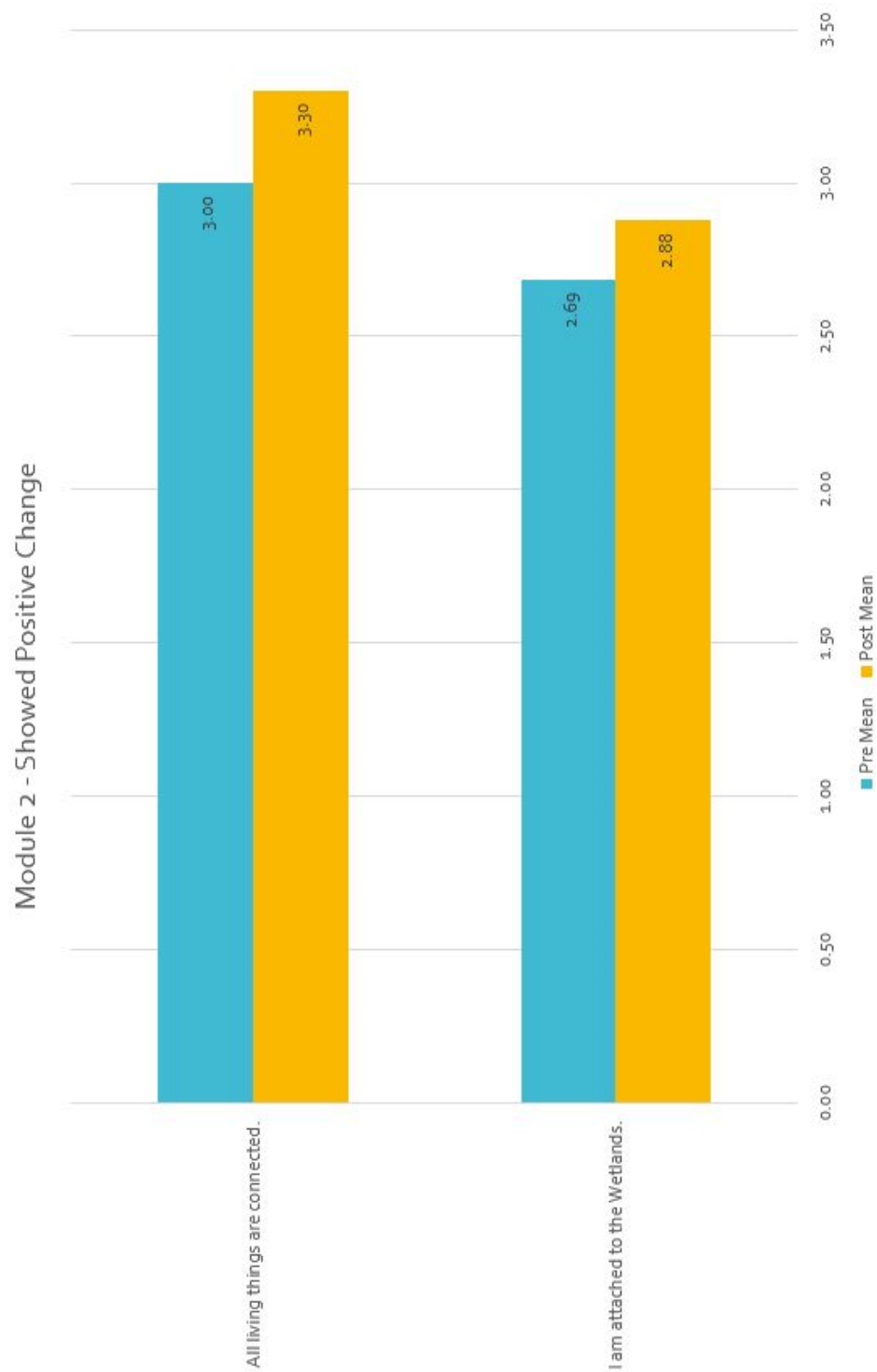


■ Went up 3  
 ■ Went up 2  
 ■ Went up 1  
 ■ No change  
 ■ Went down 1  
 ■ Went down 2  
 ■ Went down 3



Module 2 - Showed Negative Change





## Appendix C: Benchmark Study

## Benchmark Study

	Outside Las Vegas Foundation: YMCA Program	Outdoor Outreach	Appalachian Mountain Club - A Mountain Classroom: Youth Opportunity Program	Colorado Mountain Club	Thorne Nature Experience: In-School Program	National Parks/YMCA Summer Camps: Play, Learn, Work Serve Camps
<b>Mission</b>	"To connect people to Southern Nevada's special outdoor places."	"To connect youth to the transformative power of the outdoors. To realize the positive attitude and behavioral changes that help them become happy, healthy, and successful adults."	"The Appalachian Mountain Club promotes the protection, enjoyment, and understanding of the mountains, forests, waters, and trails of America's Northeast and Mid-Atlantic regions. We believe these resources have intrinsic worth and also provide recreational opportunities, spiritual renewal, and ecological and economic health for the region. Because successful conservation depends on active engagement with the outdoors, we encourage people to experience, learn about, and appreciate the natural world."	"To unite the energy, interest, and knowledge of the students, explorers and lovers of the mountains of Colorado. Collect and disseminate information regarding the Rocky Mountains on behalf of science, literature, art, and recreation. Stimulate public interest in our mountain area; Encourage the preservation of forests, fauna, and natural scenery; and render readily accessible the alpine attractions of this region."	"To build Earth stewardship by connecting youth to nature through joyful, hands-on, place-based environmental education experiences."	"To coordinate efforts to bridge the growing disconnect between young people and the great outdoors by creating meaningful connections to nature through four pillars: play, learn, serve and work."
<b>Location</b>	Las Vegas, NV	San Diego, CA	Boston, MA	Golden, CO	Boulder, CO	San Francisco, Point Bonita
<b>How long in business?</b>	Since 2010 (?)	Since 2000	Founded in 1876	Since 1999	Founded in 1954; Program since 2005	Since 2015
<b>Number of staff</b>	9 staff; 5 AmeriCorp Members	12 full time; 23 part time	100,000 members, advocates, and supporters, more than 16,000 volunteers, 12 local chapters, 450 full time and seasonal staff. Chapters reach from Maine to Washington, D.C.	N/A	10 total	Approximately 60 YMCA workers, plus support staff from other agencies (Parks & Rec, Bay Bridge volunteers, etc.)
<b>Budget</b>	N/A	Total Revenue: \$1,020,646 Total Assets: \$538,062 Total Liabilities & Net Assets: \$538,062 Total Expenses: \$825,615	For 2015: Operating Funding Sources = \$26,882 Operating Expenses = \$26,579 Operating Surplus = \$303 Total Change in Net Asset = \$1,053 Net Assets, End of Year = 114,476	Total Revenue \$2,054,320 Total Program Expenses \$1,667,847 Total Administrative Expenses \$470,717 Total Fundraising Expenses \$146,914 Total End of Year Net Assets \$4,130,041	(2015 Annual Report) Operating Revenue: \$877,281 Net Assets: \$931,034 Operating Expenses: \$812,741 <i>(In-School Program)</i> • Charge schools \$500 for a 3-visit program, but most programs are subsidized and delivered at little to no cost to schools with a high percentage of low-income or Latino students. • 10% of funding comes from schools, while 90% comes from private funders.	2015: Department of Interior writes grant to YMCA and chose 9 cities to pilot the initiative 2016: Department of Interior continued to provide funding, though at a lesser amount, as long as they continued to meet conditions and targets. There is a fee for children to attend camp, but still subsidize for unprivileged children
<b>Age range of youth</b>	N/A	Middle school; high school graduates in leadership program (former participants training to become field instructors)	Grades 5-12	K-12 Schools; youth groups and organization (everyone)	Grades K-6	2015: 8-13 2016: 5-17
<b>Demographics that they serve</b>	N/A	Target underprivileged children	Urban & At-Risk Youth	All backgrounds	"Works with schools neighboring Thorne's environmental education centers in Boulder and Littleton and low-income, low-scoring, and culturally diverse schools throughout the Denver and Boulder Metro Area."	Mostly underserved children with limited access to camps and/or outdoor activities 65% of participants qualify for free or reduced lunch

<b>Ethnicity of Program Participants</b>	N/A	Multicultural/Other: 14% African-American: 13% Caucasian: 11% Asian American/Pacific Islander: 10% Middle Eastern: 8%	Youth Opportunities Program participants: 30,072 A Mountain Classroom participants: 2,746 Youth reached at AMC destinations: 28,235 Teen Wilderness Adventures participants: 275 Teen Trail Crew participants: 1,028 Total youth participating in AMC programs: 68,645	N/A	Students of color: 60%	No exact number but very diverse
<b>Gender of Program Participants</b>	N/A	Female: 53% Male: 47%	N/A	N/A	N/A	"Perhaps it is something we will need to look at, however, from pure observation, ratio looks well represented."
<b>Educational Benefits</b>	N/A	N/A	Environmental Education: watershed science, forest ecology, geology, conservation, and leadership development	Science, math, geography, history, and art in nature	Science and Literacy	History, awareness, and knowledge of the parks children have in their communities
<b>Modules</b>	Yes; 3 Modules	No	No; separated by event, may vary by topic and location	No	Yes; 11 topic modules	No; learning comes from camp experiences, and then synthesizing their learning and new knowledge
<b>How did they grow the program?</b>	N/A	Very clear set of goals, with one overarching goal, don't get sidetracked	We seek to educate and inform our own members and an additional 2 million people annually through the media, AMC Books, our website, visitor centers, and AMC Lodges and Huts.	N/A	Began building relationships with the principles of schools, rather than with individual teachers. This allowed them to target the schools of greatest need and serve multiple classes in a day, instead of sacrificing resources (teachers, cars, gas money) to satisfy only one class. The program went from serving 2,200 students to 7,000 students.  To better assist the students, the organization converted from assembly visits, to the current 3 visit per year program. They believed that one visit was not an effective method in regards to their mission, so they now visit their students 3 times a year, every year.	Refined communication with all agencies that work on project- Pesidho Trust, YMCA, National Parks Association  Better training for youth workers to prepare for leading groups of youths in outdoor experiences  Reaching out to other agencies: is this year partnered with homeless organization

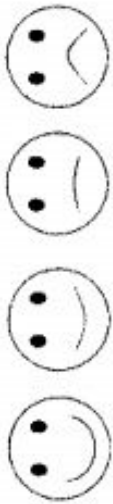


## Appendix D: Module 1 and 2 Surveys

Module 1 Pre &amp; Post Survey:

Student's Name: \_\_\_\_\_

I like to spend time outside.



Yes    Kinda    Not Really    No

I feel healthy when I go outside.



Yes    Kinda    Not Really    No

I like science about nature.



Yes    Kinda    Not Really    No

I am attached to Red Rock Canyon.



Yes    Kinda    Not Really    No

I would like to work at a park when I grow up.



Yes    Kinda    Not Really    No



Parks protect history.

<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yes	Kinda	Not Really	No	

I set a new goal this week and achieved it!

<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yes	Kinda	Not Really	No	

I have made new friends at Y Camp!

<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yes	Kinda	Not Really	No	

I can be myself at the Y. I belong here!

<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yes	Kinda	Not Really	No	

Module 2 Pre & Post Survey:

Module 2: Biodiversity / Web of Life/Wetlands Park  
July 11 - July 22, 2016

**Student's Name:** \_\_\_\_\_

**I like to spend time outside.**



Yes    Kinda    Not Really    No

**I feel healthy when I go outside.**



Yes    Kinda    Not Really    No

**I like science about nature.**



Yes    Kinda    Not Really    No

**I am attached to Wetlands.**



Yes    Kinda    Not Really    No

**I would like to work at a park when I grow up.**



Yes    Kinda    Not Really    No

**All living things are connected.**



Yes    Kinda    Not Really    No

**I set a new goal this week and achieved it!**



Yes    Kinda    Not Really    No

**I have made new friends at Y Camp!**



Yes    Kinda    Not Really    No

**I can be myself at the Y. I belong here!**



Yes    Kinda    Not Really    No