Adventure Crew
Measuring Outcomes and Impacts of
the East Bay Regional Park District’s Outdoor Program
for Underrepresented Youth, 2017-2018

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EXECUTIVE SUMMARY

This study followed the second-year cohort of the 10-month youth program, the East Bay Regional Park District’s Adventure Crew/Richmond Rangers Program offered in the 2017-2018 school year. Much like the 2016-2017 pilot year’s study, this research focused on emergent learning outcomes. The 2017-2018 program served 14 racially and ethnically diverse participants (10 to 15 years old) that were living in under-resourced households in Richmond, California. Using focus groups and semi-structured interviews, the researcher gathered rich qualitative data from the participants, parents, guardians, and staff at the end of the program’s year.

The qualitative analysis revealed that the program successfully reached the population that is low-income and traditionally underrepresented in outdoor education. The goals of the program were categorized around two major dimensions: wellbeing and nature. Each dimension was supported by the following seven program outcomes: 1) physical wellbeing, 2) socio-emotional & psychological wellbeing, 3) a safe place, 4) academic and vocational wellbeing; 5) outdoor skills, 6) environmental knowledge, and 7) connection to nature.

Both first and second year participants shared a strong alignment with program outcomes and the second cohort noted the values of equitable and inclusive access. These interview results support the conclusion that returning participants receive additional benefits during a second-year of participation. The results of the current research continue to support the thesis that Adventure Crew/Richmond Rangers program is a valuable, positive, nature-based youth development program for underrepresented, low-income, urban, adolescent participants. Part of that value is derived from the multiple factors of wellness supported by the program; socio-emotional, physical, and psychological (Tomyn, Weinberg, & Cummins, 2015; Weaver & Jackson, 2010). The program also offered an opportunity to gain important antecedents (connection to nature, environmental knowledge) of environmentally responsible behaviors.
The goal of this study was to gather scientific data to understand the Adventure Crew/Richmond Rangers (Richmond Rangers) program outcomes. This goal was maintained from the previous study in order to examine if the first year’s findings were consistent across time. For this reason, the researchers replicated the first-year methodology and collected data from three constituents: 2017-2018 participants (youth), their parents, and program staff at the East Bay Regional Park District (EBRPD) and YES Nature to Neighborhoods (YES). This study aimed to answer the following questions:

1. What program outcomes are reported by the 2017-2018 Richmond Rangers’ participants, parents/guardians, and staff?
2. Do the program outcomes reported by the second-year cohort (2017-2018) differ from the ones addressed by the first-year cohort (2016-2017)?
3. What are the unique perceived learning outcomes reported by multi-year participants?

The next section discusses the overview of the Adventure Crew/Richmond Rangers program, including background and activities.
THE ADVENTURE CREW / RICHMOND RANGERS PROGRAM

Overview

The Adventure Crew/Richmond Rangers Program (Richmond Rangers) is an innovative nature-based longitudinal outdoor recreation program jointly led by the East Bay Regional Park District (EBRPD) and YES Nature to Neighborhoods (YES) and founded by EBRPD. The program is designed to reach adolescents who live in the Western Contra Costa County but who are underserved in relation to the provision of outdoor recreation opportunities. The program seeks to develop youth leadership and teamwork skills, teach outdoor skills, increase environmental literacy, promote a sense of stewardship, break down access barriers to the outdoors and improve health and wellness (Spain & Baur, 2016). In 2016, the Richmond Ranger Program Plan was developed as a result of a collaborative process among EBRPD, YES, and San Jose State University (SJSU) Department of Health Science and Recreation.

This program is unique because of its intensity and longitudinal nature. A cohort of 14 adolescents (10 to 15 years old) led by the same staff from EBRPD and YES met for 10 months (September 2017 through June 2018), typically for three events each month (e.g., two day-long excursions and a Family Night meeting). Moreover, there were two overnight backpacking trips (in April and June). The Family Night meetings consisted of complimentary dinners followed by meetings and activities with participants, parents/guardians, and staff members (see Appendix 1. Program Calendar Appendix A). Generally, community-based outdoor education youth programs consist of temporary activities, such as a series of day-long events or an expedition-style trip; however, Adventure Crew/Richmond Rangers was designed to provide 10 months of programming in order to hone the participants’ knowledge and skills, and increase the program impacts.
Recruitment of Program Participants

The program served self-selected adolescents from low-income families that had very limited or some previous exposure to the outdoors.

The first and second years of Adventure Crew/Richmond Rangers (2016-2018) were fully subsidized by EBRPD for the participants and their families. The local partner, YES, utilized its strong relationship with the Richmond and West Contra Costa County community to recruit the second cohort of 14 adolescents (six females, eight males). YES is a nonprofit organization that has provided enrichment programs for youth and families in Richmond and the surrounding West Contra Costa communities since 1999. To take part in the YES program, participants and their families must qualify for free or reduced school lunches. The thresholds for a family of four are an annual income of $31,590 for free lunches, or $44,995 for reduced lunches (California Department of Education, 2017). YES reached out to qualifying adolescents (10 to 15 years old) and their families. Those who were interested and available to partake in the every-other Saturday activities during the academic year were considered for inclusion in Adventure Crew/Richmond Rangers. All of the participants had previously participated in one or more summer camps with YES. Therefore, YES staff were able to help identify which adolescents would be a good fit for the new program, Adventure Crew/Richmond Rangers. YES support staff continued developing optimum communication with families, such as calling and texting program reminders and always being available to respond to any questions throughout the program duration. One testament to the value of this relationship comes from a parent/guardian speaking about YES staff:

They've mastered the art of communicating with the parents to make sure they get there and on time.

Park access and inclusion in outdoor recreation are national health issues. Access to green space is positively associated with higher levels of physical activity, improved mental health, and social connections (Bell, Wilson, & Liu, 2008; Faber Taylor, Kuo, & Sullivan, 2001; Hartig, 2008; Kim & Kaplan, 2004). Unfortunately, many studies find unequal access to urban green space based on socioeconomic factors (Boone, Buckley, Grove, & Sister, 2009). Analysis of interview responses highlighted barriers (economic, cultural and knowledge) experienced by participants and their families to access healthy outdoor environments and high quality outdoor education programs. Staff expressed the importance of providing inclusive experiences for all participants and their family by eliminating the pre-existing barriers in the process of program designing, planning, and delivery (from the costs for transporting, outdoor equipment and food, to multi-language communication, racially diverse staffing, frequent and customized communication with caregivers, etc.) The results section summarizes the findings associated with this equity and inclusion.
Program Participants

The demographics data gathered by YES indicates that the participants recruited by YES identify themselves as Latino and/or African American, the majority speak Spanish at home, and live in a low-income household. The detailed distributions of gender, race/ethnicity, age, language spoken at home, and household income are listed in Figure 1 through Figure 6.

Figure 1. Gender distribution of the program participants (2017-2018)

![Gender distribution](image)

- Male 57%
- Female 43%

Figure 2. Age distribution of program participants (2017-2018)

![Age distribution](image)

- 14 Years Old 21%
- 13 Years Old 22%
- 12 Years Old 29%
- 11 Years Old 14%
- 10 Years Old 7%
- 15 Years Old 7%

Figure 3. Race/ethnicity distribution of program participants (2017-2018)

![Race/ethnicity distribution](image)

- Latino 43%
- African American 50%
- African American & Latino 43%

Figure 4. Participants' language spoken at home (2017-2018)

![Language spoken](image)

- English 41%
- Spanish 18%
- English and Spanish 41%

The majority of the 14 participants were male (57%) with an average age of 12.6 years old (range between 10 to 15 years old). Participants identified as African American (50%), or Latino (43%), or African American/Latino (7%). The majority of participants (59%) spoke either Spanish and/or English at home; the rest (41%) spoke only English at home. Most (57%) households were led by a single parent or guardian. One of the participants lived in a foster family.
As shown in Figure 5, the Participants’ median annual household income ($27,435), was 39.5% of the City of Richmond household median income ($61,045), 27.3% of the Contra Costa County household median income ($88,456), and 25.1% of the San Francisco-Oakland-Hayward metro area household median income ($96,167).

Figure 6 shows that the program participants were definitely qualified for free or reduced school lunches based on 2017-2018 Income Eligibility Scales (California Department of Education, 2017).


Figure 5. Median household incomes: A comparison to local areas

Figure 6. Participants’ household incomes: A comparison to the California free/reduced lunch eligibility (2017)
METHODS

Data Collection

After a series of consultations with EBRPD and YES staff, the researchers collected data using individual and group semi-structured interviews. The individual interviews and focus groups enabled the collection of thick and rich data. Whereas typical pre-post psychological measurements limit the possible data to specific areas targeted using structured survey instruments, the interviews gave constituents an opportunity to explore the aspects of the program that were the most pertinent from their perspective.

This study triangulated data to increase the validity of the findings. Essentially this means that findings from the three groups of stakeholders – adolescents, parents and guardians, and staff members – were compared to identify themes that were recognized by all groups.

Prior to data collection, the researcher’s Institutional Review Board (IRB) at San Francisco State University approved the study design as being ethically sound. One aspect of modern research ethics is respect for participant autonomy (Creswell, 2009). This means that all names provided in this report are pseudonyms to maintain anonymity. Furthermore, study participants were given enough information to make an informed decision as to whether to participate or not. During the study orientation at Family Night, adolescents, parents/guardians, and staff were fully informed about the research protocol and the associated benefits and risks of participation. YES staff reached out to those participants and parents/guardians who missed the parent night. Consequently, all 14 of the youth and their parents/guardians (100%) agreed to participate in the research and completed the voluntary agreement.

Focus group and semi-structured interview questions were developed by the lead researcher based partially on feedback from EBRPD and YES employees from the pilot year and then replicated for research purposes. The interview script and emergent probes were all designed to gather data pertaining to the perceived learning outcomes and perceptions of nature before and after the Adventure Crew/Richmond Rangers program.

Focus Groups with Adolescents

During June 2018, the researcher conducted three focus group interviews during the last day of the program. This occurred during a backpacking trip at the Point Reyes National Seashore. Participants were informed in advance that they would have an opportunity to share their Adventure Crew/Richmond Rangers experience with researchers at this event. A total of 11 individuals (79% of the 14 study participants) joined the focus group interviews. Each focus group consisted of four participants and lasted approximately 45 minutes. Appendix 2 provides the protocol and list of questions.
Interviews with Parents & Guardians

After the program was completed (between June through July, 2018), the primary researcher contacted all the parents and guardians to conduct semi-structured interviews over the phone or in-person. A total of 9 parents and guardians (85% of study participants) participated in individual semi-structured interviews. The duration of the interviews varied from 15 to 65 minutes per person (average of 38 minutes per person). Appendix 3 provides the list of semi-structured interview questions for parents and guardians.

Interviews with Staff

The researcher conducted semi-structured interviews with all four primary field staff representing EBRPD and YES after the program was completed in June 2018. Each interview took 36 to 59 minutes per person (average of 51 minutes). Appendix 3 also provides the list of semi-structured interview questions with staff.

Analysis

All interviews were recorded and transcribed verbatim (i.e., each word and paraverbal utterance was typed into a written transcript). All the transcripts were categorized using pattern matching to identify emerging themes (Yin, 2003). Direct quotes from the interviews were grouped by emerging themes. Sample quotes were selected to support each of the identified themes. The researcher and trained research assistant separately reviewed and analyzed the transcripts and commonalities were discussed (Patton, 1990) to ensure qualitative reliability (Creswell, 2009).

In order to improve the trustworthiness and rigor (validity and reliability) of this qualitative study, the researchers purposefully incorporated various strategies. For instance, the use of multiple stakeholders (youth, caregivers, and program staff) allowed the researchers to triangulate the findings to ensure the truth of the study findings (i.e., ensuring the research credibility). Secondly, the researchers replicated the study methods with the different cohort of the same program in order to examine if the findings are applicable to the pilot program in the second year (i.e., establishing the research transferability). Lastly, this study brought an outside researcher to review and examine the data analysis (i.e., ensuring the research dependability).

Overall, this study design and analysis provided a high level of trustworthiness by ensuring the aforementioned credibility, transferability, and dependability in the analysis.
RESULTS

What is the Adventure Crew/Richmond Rangers?

In response to the first question, “How would you describe the Richmond Rangers program?” the program participants (Rangers) described the program as a place to experience fun new activities, to learn about the natural environment, and to make new friends. Sample quotes from Rangers included:

“it was kind of hard because we had to do a lot of hiking, but it was fun. Most of the trips I went on were fun. They always make us try to feel comfortable or welcome.”

“Richmond Rangers is like a place you can make new friends and learn plants and you get to see snakes and all other creatures.”

“I’ll say it’s a place where you can learn stuff and make new friends but also have a good exercise.”

Parent/guardians comments were overwhelmingly positive. They described the Adventure Crew/Richmond Rangers program as “awesome,” “highly recommended,” “unique,” and as an “exposure opportunity.”

These responses overwhelmingly aligned with the responses from the first cohort of Rangers. Furthermore, this study captured growth along the learning outcome spectrum of returning Rangers.

The next section will discuss the program outcomes generated from the qualitative analyses of the interviews with youth, caregivers, and staff.
Social Justice Approaches in Adventure Crew/Richmond Rangers

Over three decades of research articulates the disparities in the access to green spaces based on a person’s gender, age, race, income, health conditions, and education status (Covelli, Burns, & Graef, 2007; Lee, Scott, & Floyd, 2001; Payne, Mowen, & Orsaga-Smith, 2002; Schroeder & Wiens, 1986). People from non-Caucasian backgrounds, low levels of education, low income earners, and older people (particularly those affected by poor health) are the groups most constrained from visiting parks (Zanon, Doucoulagos, Hall, & Lockstone-Binney, 2013). Common constraints preventing youth from experiencing the outdoors include access, fear, and lack of interest and/or time constraints (Bay Area Open Space Council, Pacific Forest and Watershed Lands, & Stewardship Council, 2010; Outdoor Foundation, 2017; Pozzoboni, Sikand, Reist, & Roberts, 2014). The lack of access includes limited transportation and inadequate resources such as specialized gear, equipment, entrance fees and knowledge about which activities are possible in which locations. These disparities are a social justice issue because parks are intended for the public good of all. If health benefits of green space are disproportionately gained based on economic, demographic, and cultural factors, then that is clearly a social injustice (Gress & Hall, 2017; Jennings, Johnson Gaither, & Gragg, 2012; Warren, Roberts, Breunig, & Alvarez, 2014).

Current interview responses echoed the abovementioned constraints and parents/guardians’ appreciation of the equitable opportunities for their children’s growth and park access through the Adventure Crew/Richmond Rangers program. Parent/guardian interviews consistently provided a perspective that the program was invaluable for the youth and their family, and that the program contained a genuine focus on equity, inclusion, and opportunities for growth.

For instance, one of the parents/guardians said:

“Well, I think they [Richmond Rangers] are important...as a single parent you know there’s, you have to do kind of everything on your own. And sometimes you need...other organizations, other people that are gonna’...add value to your children and...teach them something or strengthen...what you are trying to kind of instill in your children...There’s a lack of funding and a lack of...just wherewithal to have your children participate in all these different...”
In addition to time, money, and resources, this caregiver continued to share her concerns around limited access to outdoor activities as a person of color and expressed the importance of access to nature for all.

“...activities that really you may not, like, as a person of color always have access to. And, um... so I think it's important to... make it accessible to everyone so that you can have that awareness... the respect, the safety, the discovery, the community, the nature.”

This quote supports the ideas that socioeconomic disparities and perceived or actual discrimination are some of the reasons why ethnic and racial minorities and low-income groups do not participate in the outdoor recreation (Byrne & Wolch, 2009; Johnson, Bowker, & Cordell, 2004; Gress & Hall, 2017; Roberts & Suren, 2010). One parent/guardian shared the challenges of finding and enrolling in a low-cost program like Richmond Rangers:

“You know in a program, like the Richmond Rangers, and living in California, you also see that there's opportunities for families to participate in programs, very low cost or no cost, [but] I know that it's not always available either in other parts of the country, or some parents are just not aware of what's available.”

A parent/guardian shared how valuable this subsidized program is for her child's life as follows:

“It's really awesome, like I don't know what to say about this program - I can't say enough about it... I can't believe it like this is free to my child. He gets benefit from it - not just to have fun. You know, it's playing a part in his life.”

Another parent/guardian spoke highly about how this program helps to close disparities that she experiences:

“Had she not been involved in that thing, she wouldn't have seen that part of the world and she wouldn't have gotten to know how different people 'get down,' how different people act [in] different places, and she wouldn't have gone to those places. It was like off the chart for her and I'm so glad I got her involved in it. It was just awesome.”

Another aspect of social justice that emerged from the interviews was specific programming design that ensured the equity and inclusion in youth and family's experience.

Those equitable and inclusive programmatic approaches include:

• Financial Support - Provide full subsidy of program cost (e.g., outdoor gear and equipment, healthy food throughout the day, transportation).

• Local Access - Focuses on locally accessible regional parks (i.e., using public transportation that ended or started at the local stop, starting and ending at easily accessible partner agency locations).

• Culturally Relevant Staff - Led by consistent group of multilingual staff with cultural heritage that is similar to the participants' and/or have high cultural humility.

• Relevant Communication - Actively communicate with caregivers using specific mode and language that the caregiver felt most comfortable with.

Staff understood each family's challenges and provided
customized and genuine care to support families and youth during the program year and beyond. Although there were some issues that were common across most participants, some challenges were unique and required communication to understand and perspective to empathize with. For example, one of the staff talked about a particular parent who was a single parent and a student who recently lost her Internet access. This made it difficult for her to submit her homework and complete her schoolwork. The staff member noted:

“[the abovementioned condition] just adds on to the stress that this community’s dealing with…violence and…access to healthy food and…affordable (education) opportunities for their kids…”

And this staff continued:

“Not much I can do for her in terms of…helping her out financially or, you know, helping her with her own health or whatever it is. But if I can uh, through the program, support her, her child, um, to be successful in the Richmond Rangers. I think that that contributes a lot to not only the son’s quality of life, but to her and her success.”

This is an example illustrating the depth of trust that this staff gained from parents/guardians and the staff member’s desire to make differences in the unjust situations that these underrepresented groups have to deal with.

There is unequal access to urban green space based on socioeconomic factors, such as city philosophical and cultural priorities, history of land development, changing recreation and leisure tastes, and histories of class and racial inequality through oppression. Zanon et al (2013) concluded that parks and park services needed to be more inclusive in offering programs and facilities to meet the needs of the general public. Based on the current study, EBRPD and YES have successfully served part of a group that is traditionally underrepresented; low-income families of color; through the Adventure Crew/Richmond Rangers.

It is important to note that some may argue that the natural environment as a “sanctuary” is reflective of dominant culture, (Warren et al., 2014). Simply bringing more racially and ethnically diverse youth into the same system does not change the underlying social structure (Martin, 2004). The integration of social justice into outdoor programs is necessary to create a more welcoming space. This includes more culturally aware and inclusive teaching methods and outcomes, creating a sense of belonging for all students, and fostering a more inclusive and participatory outdoor learning environment (Warren et al., 2014). Moreover, as a public agency, offering such a culturally relevant and socially equitable programming demonstrates parks’ adherence to the goal of fostering positive environmental stewardship across all groups of residents (Roberts & Chitewere, 2011; Zanon et al., 2013). This underlying social and environmental justice framework is supported by the current data.
Seven Outcomes

After numerous reviews and coding of each interview response, the researchers generated the following seven themes as Richmond Rangers’ program outcomes, which are conceptually grouped into two dimensions, “wellbeing” and “nature.” These themes are grounded in a social justice perspective. Figure 7 is the conceptual graphic image of the Richmond Rangers program (a tree) growing from a social justice approach (the soil) and producing the seven key outcomes (the fruits) emerging from the twin trunks of “wellbeing” and “nature.” The “wellbeing” dimension consists of four program outcomes: 1. physical wellbeing, 2. socio-emotional and psychological wellbeing, 3. a safe place, and 4. academic and vocational wellbeing. The second dimension, “nature,” includes an additional three outcomes: 5. outdoors skills, 6. environmental knowledge, and 7. connection to nature.

It is important to note that the researchers drew meaning from each interview response and found that some of the responses captured multiple outcomes in one quote (e.g., a sense of calmness in nature can be captured under outcome 2 (psychological wellbeing) as well as outcome 7 (connection and appreciation to nature). The researchers also recognize that conceptually these seven outcomes overlap to some degree (e.g., self-confidence gained through physical challenges). The next section explains the study results using the abovementioned seven outcomes.

Figure 7. Emerging Outcomes of the Adventure Crew
Outcome 1: Physical wellbeing

The national obesity rate for youth aged 2 to 19 years old is 18.9% (Centers for Disease Control and Prevention, 2019). Benefits of physical activity have been widely documented, but urban, racially diverse, lower-income youth may not always have access to safe outdoor spaces that facilitate physical activity (Lee, 2015; Eather, Morgan, & Lubans, 2011; Salvo, 2017; Echevarria, 2014). Adventure Crew/Richmond Rangers curricula incorporated outdoor physical activities in welcoming and safe spaces. These activities were engaging and often designed to challenge participants.

The most repeatedly mentioned challenge for the youth participants were the physically strenuous activities, such as long-distance hikes. However, participants also indicated these adversities strengthened their mind and body. For instance, a participant said:

“Hiking is kind of a hard thing to accomplish. And so, if I didn’t do this and if I went hiking all of a sudden, my body wouldn’t be able to accustom to that. I’d be tired most of the time. And like doing this, I have pushed myself to do things that I thought I wouldn’t be able to do before…thought of doing, because I’m a pretty lazy person. But it gave me a lot of endurance to keep going and to last longer and get less tired.”

The majority of participants noted that the long-distance walks were the hardest part of this program; however, they also mentioned “getting up early on Saturday.” These findings are consistent with 2016-2017 findings.

Two participants spoke of gaining not only physical strength, but also endurance and stamina:

“i gained a lot of knowledge about forest and animals and leg muscles.”

“i gained a lot of calf muscle. Strength. Learned how to walk more further. Very good cardio. Stamina.”

The qualitative data suggests that participants experienced increasing physical activity levels and improved physical strength. Future studies should examine objective changes in their physical activity and/or fitness levels.
Outcome 2: Socio-emotional and psychological wellbeing

Living in a densely populated city in the San Francisco Bay Area can be stressful on many levels. Many of these participants previously had few or little authentic experiences in nature, especially outside of their closest park. The program offered opportunities to experience calmness, peace and psychological freedom. One participant commented:

“...it’s usually quiet when you’re in the nature and...at ease when you’re in a calm position and you feel like...you’ve let out off a big burden or you feel a lot better if you’re stressed out. It’s you just feel really calm because you’re just breathing in the air and stuff.”

Another participant also said:

“Yeah you know I feel, well for me fresh air just makes me feel calmer. It’s kind of like releases my worries.”

A parent/guardian said:

“She usually comes back from Rangers really positive and really high.”

The stress reduction theory (R. Ulrich, 1981; R. S. Ulrich et al., 1991) provides a conceptual framework that explains this emotional and psychological phenomena. Ulrich et al. (1991) suggests that an exposure to an unthreatening natural environment (water, tree, etc.) likely leads to a positive affective response and wakefully relaxed attention, and these experiences tend to result in stress reduction. Participant comments noted that they received emotional and psychological benefits from immersion in natural environments.

Another aspect of wellbeing that the interview data revealed was the participants’ personal growth at the socio-emotional and psychological levels, including independence, confidence, communication skills, and autonomy. These are essential leadership skills. Many of the parents/guardians communicated their observations of participants
experiencing pivotal life changes and periods of personal growth during the program. One guardian said:

They instill stuff in him that he can use for life. He learned to…you know, talk. He talks more to people and I think in a more mature way.

Another guardian commented:

“I’m trying to get him that confidence of walking into a group of people or facing a new task or facing a new challenge. It’s always hard for him and I think being in this program it helps him. It really does. He’s changed a lot. He’s more independent. He’s a lot more independent. He communicates… Yeah, it changed his life, it changes his life.”

Beyond the life skills, this parent/guardian discussed how her child was empowered to be more responsible:

“Because they do a lot of stuff where they [staff] give him tasks to…being responsible and showing up when he’s supposed to. Yeah, [they] let him be responsible and let him be empowered with his future, or his day, or the way he wants to spend his weekend.”

Staff also recognized the participants’ growth, and one staff said:

“But I really like it when the kids, I feel like they grow. They grow a lot from those experiences… Like the times I saw John [pseudonym] had, he like, changed so much as when he, was like, being asked to do things that, like, last year he would never do. You know, like lead a game or explain the game.”

Some participants were increasingly given more leadership roles as the program progressed, be it public speaking or a leadership role in an outdoor activity.

Personal growth is part of socioemotional and psychological wellbeing, and it is pivotal to positive youth development (Caldas, Broaddus, & Winch, 2016; Quibell, Charlton, & Law, 2017; Schwab & Dustin, 2014). A successful outdoor recreation program supports such positive youth development (Eccles & Gootman, 2002; Witt & Caldwell, 2010).
Outcome 3: Safe place

The concept of a safe place developed from two perspectives. First, participants felt welcomed and safe. Second, parents/guardians developed trust in the staff and further bonded with their child and other family members through the program.

Participants and their parents and guardian reported that EBRPD and YES provided a unique and safe space for participants to express themselves. It provided a sense of home and psychological safety for some participants, which is an aspect of multi-dimensional wellness (Miller & Foster, 2010). Staff were vital in this process as shown in many interview responses. A parent/guardian said:

“ He loves the leaders. The staff members, he loved them. They treated him well. He really liked talking about that.”

One participant commented:

“ When I came in, they were all smiling and they were all like ‘Oh, come in. Uh, there’s food right here. You can make a pack and just feel like home.’ And stuff like that. So, they just knew me by me, and like, the first day they just welcomed me with open arms. They didn’t care what I did to get here or where I come from or anything like that. They just loved seeing me here.”

Another participant similarly noted:

“ ...[staff] wouldn’t care if you made the mistake. [They] said ‘Oh just keep on trying. You get there.’ And that’s what’s so great about the Richmond Rangers. They don’t care where I’m from. Wherever you come from, whatever you did, it’s all gone. You’re just with them now. Stress from your house or anything that’s going, if you’re being bullied. They’re your second family. I feel like that. And like you can trust them with anything.”

Staff said:

“ Simply like being out and experiencing and having the sort of, like, seeking friendship from the adults and sort of what that gets out of for them. It’s something that I’ve also noticed.”

One of the parents/guardians addressed the importance of trust that her child developed with the staff:
They [staff] gave him his space and when people do that, I think that’s trust to him. When you try to understand him or take the time to not judge him. They talked to him, they offered to mentor him or like even on the weekends you know to come hang out “I can talk to him whenever you need me to talk to him about anything.” You know so they really like help him like I don’t know how to describe it it’s just like...he’s so confident and sure when he comes in. They are glad to see him and he’s glad he’s wanted. He feels like this is his place. He’s...this is his Rangers group and you know, he can be open with them and he can you know he can you know trust them.”

Another aspect is a positive connection with peers through the program. Most of the participants noted the friendships they built were their favorite parts of this program. For instance, when a researcher asked, “What was one of your favorite parts about the program?”, the participant response was “Making new friends.” Another participant commented:

“...You make new friends and it helps you feel comfortable at Richmond Rangers to have friends.”

Secondly, family involvement through Family Night meetings helped with breaking down some of the barriers, and contributed to the broader sense of safety. This included gaining trust from families, developing an excitement towards outdoor activities, creating bonds among family members and the participants. Many parents/guardians reflected on their own lack of experience with the outdoors. For instance, a parent/guardian said:

“I’ve never been to camp. And so, this was a big thing for me, her going to camp.”

Letting their own child do something that parents/guardians have never done can be challenging or fearful for some. Yet, the interviews show that the program provided an opportunity to foster outdoor activities among their family members. One parent/guardian said:

“...I appreciate the program so much because a lot of the things that they do are obtainable. They are things that families can do.”

Staff broke down information barriers about resources and information regarding access to natural environments in their local community. Moreover, the program helped remove perceived barriers and provided the skillsets required for outdoor recreation. Family Nights contributed to cohesion for participants and their family members. One of the parents/guardians of a multi-year participant said:

“Just getting to know the other parents was great.”

As noted in this parent/guardian comment, developing connections with other families was a desirable outcome:

“So, to me Family Nights are really important because it brings a lot of bonds with children but it also brings a lot of bonds with families.”

Many parents/guardians expressed wanting even more activities with their children. Participants spoke of a sense of community and belonging among the group, shored up by these Family Nights.

Overall, it was clear that a safe place was intentionally built through the community engagement and that this is a central part of holistic wellbeing. Staff made the participants feel welcome and allowed them to be themselves, participants reported that making new friends and deepening those relationships was the highlight of the program, and parents/guardians developed connections with the program and their child through periodic Family Nights.
Outcome 4: Academic and vocational wellbeing

Unexpected outcomes of this program included both current and future academic support as well as vocational aspirations. Parent/guardians expressed that the program added value to their child’s potential future academic achievements and vocational attainment through the influence of trusted leaders’ perspectives on life, various experiences, and people; and developing the sense of commitment required to follow through.

One of the parents/guardians explained:

“He learned that there’s all sorts of kids that he didn’t know and he got to be around different people. That’s learning experience that will help him through life, will help him go off to college. To help him probably go see different places in the world. You know the leaders were really good for him. Their perspective on life was different from mine. Those kinds of things you can carry with you through life.”

Many participants commented as follows:

“It was commitment to just come here on time and things like that. It’s a great reference for like colleges or jobs.”

“Yeah, they do college stuff for people who are going to college. They do that.”

“You can use it on a resume or an essay.”

One of the participants also said:

“If you wanted to be like a Ranger or study science or the wilderness, [Richmond Rangers] is something good you could use.”

Although the focus of this study does not include data of academic or vocational successes, participant and parent/guardian interviews revealed increased beliefs in positive academic achievement and vocational acquisition. According to the Bandura’s Self-Efficacy theory, individuals’ belief in their ability to influence events affects their ability to achieve desired outcomes (Bandura, 1997; Bandura & Jourden, 1991). This belief that the participants cultivated in their ability to achieve desired outcomes is vital to support and sustain motivations to attain future academic successes and vocational achievements.
Outcome 5: Outdoor skills

The breadth of acquired outdoor skills was large. The opportunity for development was relatively large considering that participants had low levels of previous experience in the outdoors. In contrast, the program included overnight trips and day excursions that put participants in direct contact with the outdoors.

Parents/guardians also expressed an increase in their child’s outdoor skill set. Some of them mentioned that they could now camp together as a family without worrying about these outdoor skills:

“You know camping taught him a lot because he knows how to build fires and stuff. You know they do real camping. Sleeping on the ground. Catching their food, fishing and all that stuff. Hiking to the campsite.”

Participants also shared their excitement in learning different types of outdoor skills; for instance, one said:

“My favorite part was catching a fish, a rainbow trout, when we went fishing. Never caught a fish before in my life.”

Another participant commented:

“I learned how to read maps…”

“I learned some sort of skills like pumping water, or how to make your own stoves like making a portable stove.”

Over time, participants were requested to take increasing levels of responsibility for their outdoor tasks (e.g., “sweeping” the group, setting up a tent, hiking longer miles with a heavier pack). These experiences provided opportunities to increase their self-efficacy in outdoor settings and develop other leadership skills.
Outcome 6: Environmental knowledge

Both community partners executing this program, EBRPD and YES, are highly committed to outdoor education, youth development, and environmental stewardship. These are increasingly necessary on a planet experiencing increasingly extreme weather events, higher carbon emissions and other environmental pollutants, and increased rates of species extinction. Gaining exposure to and knowledge of the natural environment can increase its value to the participant (Chawla & Cushing, 2007; Cheng & Monroe, 2012; Vaske & Kobrin, 2001). Subsequently, such values may lead to more environmentally sustainable life choices.

One participant stated:

“ My favorite part about Richmond Rangers is being outside and helping the community and seeing new animals that I didn’t know about.”

Another participant explained:

“ [Without the Richmond Rangers’ experience,] I wouldn’t be able to gain plant knowledge. I wouldn’t know a lot about redwoods, and what’s poison oak, and what could kill me, if I went to the bushes or something.”

Similarly, another individual said:

“ I learned about the different plants… and plants you can eat and plants you can drink. I mean not drink…well yeah you can drink it because you squeeze it and you make the juice come out.”

Parents/guardians also communcated that their children learned about flora and fauna in their local parks. For instance, one parent/guardian said confidently:

“ And let’s say we go to the park and all the names of the animals she knows, she sees, and she explains. She’s learning from them. Let’s say we see an animal and she knows the name and she knows what it does, what it is, and she explains all that. She knows a lot.”

Participant and parent/guardian interviews revealed that participants deepened and broadened their knowledge of the natural environment through hands-on experiences.

Furthermore, this program opened doors to local spaces that parent/guardians didn’t necessarily know existed before or have the wherewithal to visit. This multi-generational outcome led many affiliated with the program to look with fresh eyes at their surroundings and most were exposed to new scenery within the Bay Area. Parents/guardians commented as follow:

“ I like that they take them places locally because you don’t even know a lot of these places. I didn’t even know [they] existed in my own neighborhood.”

Another parent/guardian noted:

“ it’s a good experience for your child to be able to go these places and view these places for themselves. And you know if it’s just a great thing for them to do because otherwise they may not get to do these things and see these places, because I definitely wouldn’t know where a few of ‘em is.”

Parents/guardians also noticed that their child was becoming more aware of the local outdoor spaces. One shared an experience with her daughter when they visited a local regional park:

“ I think she was like ‘Oh you know I recognize this. I think I came with the Rangers.”

One participant said:

“ I mean I’ve been at far camps, but like I never knew there was like Point Reyes like right here. I never knew this ever existed.”

Overall, the participants gained not only knowledge of flora and fauna in their local parks, but they also acquired the sense of increased affinity for and a geographical sense of local regional parks.
Outcome 7: Connection to nature

Adventure Crew/Richmond Rangers developed a connection to nature. This connection was visible through new or renewed senses of belonging in, and attitudes towards, the natural environment for most of participants and for some parents/guardians. Furthermore, the program offered opportunities to gain a deeper appreciation of and a sense of stewardship toward nature through meaningful experiences in the outdoors.

Some participants speculated that they would not go outdoors or do certain outdoor activities if they were not part of this program. For instance, one participant said:

“Richmond Rangers is to get kids outside instead of being indoors all-day playing videogames.”

Another participant said:

“I will never been (sic) going outside unless for basketball.”

As previously mentioned in Outcome 2: Socio-emotional and psychological wellbeing, participants spoke of a sense of peaceful calm during their Richmond Ranger experiences in nature. Furthermore, participant comments suggest they otherwise would not be able to find this opportunity in their day-to-day living if they had not participated in the program.

In addition to a sense of peace and calm that they experienced in nature, the participants also shared the excitement of finding wildlife. For instance, one participant said:

“Like, you actually get to see birds- like real. Not like (video) game birds, like real life stuff we get to see.”

Another participant addressed the concerns of human impacts on the lands:

“Well right now to this society, everything’s man made. So, when you’re out here, it’s the real thing. You know all this stuff has evolved over time. It’s been here for the beginning of Earth and we kind of just take that for granted because this place has so much history and it’s not like how we make it like factories. Being outdoors, nature is like what Earth is, but we’ve just taken it-made it into man-made things.”

Some participants noticed the move from a more fearful or apathetic stance towards nature, to a more welcoming and calming stance; and attributed it specifically to Adventure Crew/Richmond Rangers. This is known as a move from biophobia to biophilia (Kellert & Wilson, 1995; Zhang, Goodale, & Chen, 2014), and this is further expanded in the previous report with the first cohort of 2016-2017 (Yoshino & Corona, 2018). In response to changes in how they view nature before and after the program, the participants overall responded with pro-nature attitudes:

“Like my point of view or perspective of nature would be slightly different because I wouldn’t have gone on a lot of trips and I wouldn’t have seen new things. So, I probably would’ve been tired I wouldn’t find an interest in nature because I wouldn’t know a lot of places to go to or see. So, I would probably be disinterested in nature.”
Another participant said:

“Yeah, pretty big difference. Probably back then I would’ve probably thought half the things that I’ve done today were pretty gross and I probably wouldn’t have enjoyed it as much because I didn’t know very much about nature. I was kind of closed-minded then.”

Another participant commented on the cumbersome aspect of hiking and camping:

“I probably wouldn’t have gone out hiking because I sit out and watch TV. I would’ve never slept cause I sit out and watch TV. I would’ve never hiked outside in tents.”

The participants also expressed their empathy for wildlife as follow:

“...my least favorite part about all of this was seeing a lot of dead creatures on the inside the ocean. And I try to help some of them. I did but some didn’t make it and they died."

Another participant shared empathetically:

“...when we’re not able to help out animals because they say it’s part of the life cycle of an animal when they’re like in pain."

The participants also commented on their involvement with environmental stewardship in their local parks and community; for example, one said:

“Like pickin’ up the trash just help the environment like tryin’ to like take down the weeds when there’s fires. When there’s a lot of fires we try to take down the weeds so when it like get fire, gonna’ catch fire. And uh, what else did we do? We just liked picked up a lot of community trash, that’s all. And we just like to visit places try to help out the community."

These interview responses support the similar findings from the previous year’s report (Yoshino & Corona, 2018); that is through meaningful exposures to nature, participants gained a sense of connection to nature, an appreciation of nature, and a sense of stewardship toward nature. Participants’ interviews suggest a trend of developing biophilic values. The concept of connection to nature provides a sense of “we-ness” (Frantz & Mayer, 2014), and the literature supports that this belief leads to environmentally responsible behaviors, even if that behavior is inconvenient (Ajzen, 1987; Bamberg & Möser, 2007; Frantz & Mayer, 2014; Kals, Schumacher, & Montada, 1999; Wells & Lekies, 2006).

Finally, the researchers compared the current study findings with the intended program goals that were developed by administrative staff, community-based organization, and academia (Spain & Baur, 2016). The results based on the participants, parents/guardians, and staff provided support that each of the intended program goals that listed in Appendix 4 were achieved.

In summary, this qualitative inquiry finds that the program resulted in positive youth development by promoting multi-dimensional wellbeing (Adams, Bezner, & Steinhardt, 1997; Horton & Snyder, 2009; Roscoe, 2009); including physical, socio-emotional, psychological, social (safe place), academic, and vocational development. The second major outcome was environmental literacy and outdoors skills. The Adventure Crew/Richmond Ranger program provided participants with deeper levels of connection to nature, appreciation of nature, knowledge of flora, fauna, and natural history, familiarity with the local outdoor spaces, and essential outdoor activity skills that supported a desire and confidence to explore the outdoors.
Benefits of Multi-year Participation

The researchers specifically conducted a focus group with only returning participants, who were asked about the differences in their first- and second-year experience. The common themes found in the interview responses were becoming more social, developing a sense of responsibility and self-efficacy, and receiving greater recognition for their knowledge and experience.

One of the returning participants said:

“\[I\] was more confident and more comfortable around people this year. I know I was pretty quiet last year but I’m more comfortable now. I was more comfortable this year and I actually made friends.”

Another returning participant commented:

“I found my role was different because I had to be like the leader. I had to be the leader because I was the oldest.”

One participant acknowledged the role staff played in fostering a sense of leadership and self-efficacy in the returning Rangers, “We were more kind of recognized.”

One of the returning parents/guardians said:

“Like he [a returning participant] gets to the point where he’s teaching the others like the newcomers and to the Rangers. He kind of encourages them on the hiking trip.”

YES staff commented:

“\[I\] think just noticing how much the kids are getting out of it, and especially this being the second year, and some parents and some youth have been part of the program now for two years. [They] really know the ins and outs of the program and the expectations and they talk about how much [it] is benefiting them. And how much growth they’re experiencing and I think that’s what I need to know the most and what I like. The rewarding part for me is seeing that.”

Although there are only a handful of participants that participated in the program for a second year, the interview responses suggest positive outcomes and show no concerns in having participants participate for multiple years. Based on this information, repeating the program is recommended for participants. A more extensive longitudinal study that gathers data across time from participants that were in the program for different durations may offer some insights to understand the complexity of a participant repeating the program for multiple years in row.
Staff Accolades and Suggestions

Appreciation for both YES and EBRPD was evident in many participant and parent/guardian interviews. One participant commented:

“[It’s] a lot of people who helped us throughout this year. And I just want to acknowledge them. They may not be here now but in the past, they’ve contributed to what I know now and how I see things now.”

One of the parents/guardians noted:

“Well I think that they are a fantastic staff. They seem to work well together. I see them together quite a bit. I’ve never seen any friction or anything. So, I think that’s good because then they just pass it on down to the kids- you know you can work together. I just think they are a great bunch.”

Another parent/guardian said:

“Well, just the way they talk to them. I see smiles. I don’t see a lot of frowns and stuff when they’re talking about the kids in earshot. They [the kids] talk about how great they are.”

One parent/guardian said:

“One thing I think I would like to see is have them do some kind of speaking assignments you know because they need to be able to do that at some point. So, maybe a little speech.”

Family Nights were overwhelmingly applauded as helpful, communal, and enjoyable. At the same time, being more flexible with time and scheduling of Family Nights, to allow for greater family participation.

“I’m sure there’s other people can’t make it because of the job. Maybe doing a different date or day or you know maybe open a weekend.”

Another parent/guardian offered an additional model for family inclusion, “they could do a small one-day thing with the parents too like a little walk.”

Some constructive feedback on how to improve the program included giving participant youth more leadership roles, both on excursions and at Family Nights. Increasing the number of overnight excursions and the number of Family Nights was also a theme. Programming staff took this to heart and made those changes to the 2018-2019 Adventure Crew/Richmond Rangers schedule.
Comparing the Outcomes by Cohort

Interestingly, the qualitative analyses suggest that the first and the second cohorts reported nearly identical program outcomes (Table 1). It may be speculated that the nearly identical outcomes may be the product of the same researchers with similar analytical lenses; however, the primary researcher invited a new researcher, who knew nothing about the results from the first cohort, to be part of the analysis of the second cohort’s data in order to provide a fresh analytical lens. Therefore, consistent findings in the first and second cohorts suggests that the program repeatedly produced desirable outcomes, and the results were not due to the particular participants or other dynamic properties of a single cohort. This is extremely positive because it suggests that it is possible to continue to produce positive outcomes across time.

Table 1. Emerging program outcomes by cohort year

<table>
<thead>
<tr>
<th>2016-2017 Cohort</th>
<th>2017-2018 Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment of underrepresented youth</td>
<td>Social justice</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>1. Physical wellbeing</td>
</tr>
<tr>
<td>Psychological wellbeing (resiliency)</td>
<td>2. Socio-emotional &amp; Psychological wellbeing</td>
</tr>
<tr>
<td>Socio-emotional learning and Leadership skills</td>
<td>– Stress reduction</td>
</tr>
<tr>
<td>Safe place for participants</td>
<td>– Leadership skills</td>
</tr>
<tr>
<td>Increased family involvement</td>
<td>3. Safe place</td>
</tr>
<tr>
<td>College/Career Preparedness</td>
<td>– Welcoming place</td>
</tr>
<tr>
<td>Outdoor skills and environmental knowledge</td>
<td>– Increased family involvement</td>
</tr>
<tr>
<td>Biophobia to Biophilia</td>
<td>4. Academic &amp; vocational wellbeing</td>
</tr>
<tr>
<td></td>
<td>– Perceived assets (current and future)</td>
</tr>
<tr>
<td></td>
<td>– Career aspirations</td>
</tr>
<tr>
<td></td>
<td>5. Outdoor skills</td>
</tr>
<tr>
<td></td>
<td>6. Environmental knowledge</td>
</tr>
<tr>
<td></td>
<td>7. Connection to nature</td>
</tr>
<tr>
<td></td>
<td>– Appreciation for local outdoor spaces</td>
</tr>
<tr>
<td></td>
<td>– Biophobia to biophilia</td>
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</table>

3 Similar to the previous year, YES successfully recruited the group of underrepresented youth, yet this was not listed as a program outcome. The social justice opportunities that program provides are addressed.
CONCLUSIONS

The goal of this study was to gather scientific evidence to understand the outcomes of the Adventure Crew/Richmond Ranger program. Participants consisted of 14 racial and ethnic minority female and male youth (10 to 15-years old). Participants came from under-represented households where the participants’ family income averaged less than half of the California Department of Education (2016) threshold for reduced price school lunches.

Participants and parents/guardians provided overwhelmingly positive feedback about the program. They described the program as a place to experience new things, make new friends, learn about the natural environment, and enjoy a variety of activities. Focus groups and semi-structured interviews with participants, parents/guardians, and program staff captured perceptions of the participants’ experiences and program outcomes from multiple stakeholders.

In-depth qualitative analyses included verbatim transcription, open coding, and generation of patterns and themes. This process identified the importance of the use of equitable and inclusive approaches that mitigated psychological, economic, and social constraints. Reducing constraints to park visitation, such as cost, fear, transportation, gear, companionship, park and activity knowledge, and experience is vital to provide more equitable access to the public good of parks and green spaces.

These analyses also resulted in finding the two major dimensions of outcomes (wellbeing and nature) that included seven different emergent program outcomes. As shown in Figure 7, the wellbeing dimension consisted of 1. Physical wellbeing, 2. Socio-emotional and psychological wellbeing, 3. Safe place, and 4. Academic and vocational wellbeing. The nature dimension was comprised of 5. Outdoor skills, 6. Environmental knowledge, and 7. Connection to nature. Rich data gathered from multiple stakeholders for two sequential years supports the finding that the Adventure Crew/Richmond Rangers program reliably produces consistent desirable outcomes for underrepresented participants.

Future studies should consider incorporating objective measurements to further validate findings. Specifically, this may help to understand if reported perceptions and attitudes correlate with increased levels of fitness or improved pro-nature behaviors. Moreover, comparison groups should be used to further identify which changes can be attributed to the program versus more generalized increases in maturation. Such quantitative inquiries may better support the dosage question, “How many activities of what duration would most effectively facilitate the desired outcomes?” Tracking longitudinal impacts (a decade or more later) on the participants’ wellbeing and behavioral choices should also be considered. An accumulation of data may provide for a better estimate of the economic value of the Adventure Crew/Richmond Rangers over time.

Increasing health disparities and uneven access to salutogenic natural environments and parklands are an ongoing concern, particularly for underrepresented groups living in a low-income households. This study provides evidence for policy makers and public agencies that a genuine focus on equity, inclusion, and opportunities for underrepresented youth to experience the outdoors can lead to the development of personal wellbeing and positive attitudes toward nature (Figure 7). The interview data suggest that these results impact more than just the participants, but positively impact their families and potentially other members of their community. Therefore, equitable park access provided by youth development programs, such as Adventure Crew/Richmond Rangers, is a vital intervention and a park strategy that cultivates holistic wellbeing and future park stewards.
REFERENCES


## Program Calendar (2017 - 2018)

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>September</strong></td>
<td>Parent Meeting</td>
<td>Wednesday, September 27</td>
<td>6-7pm</td>
</tr>
<tr>
<td></td>
<td>Parent Meeting</td>
<td>Friday, October 6</td>
<td>5:30- 7pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, October 7</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>Camping Trip</strong></td>
<td><strong>Saturday, October 21-22</strong></td>
<td></td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>October</strong></td>
<td>Parent Meeting</td>
<td>Friday, December 1</td>
<td>5:30- 7pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, December 2</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, December 16</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>November</strong></td>
<td>Saturday Expedition</td>
<td>Saturday, November 4</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, November 18</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>December</strong></td>
<td>Parent Meeting</td>
<td>Friday, December 1</td>
<td>5:30- 7pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, December 2</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, December 16</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>January</strong></td>
<td>Saturday Expedition</td>
<td>Saturday, January 6</td>
<td>9am- 3pm</td>
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<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, January 20</td>
<td>9am- 3pm</td>
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<tr>
<td><strong>February</strong></td>
<td>Saturday Expedition</td>
<td>Saturday, February 3</td>
<td>9am- 3pm</td>
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<td>Saturday Expedition</td>
<td>Saturday, February 17</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>March</strong></td>
<td>Parent Meeting F</td>
<td>Friday, March 2 (intro backpacking)</td>
<td>5:30- 7pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, March 3</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, March 17</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>April</strong></td>
<td>Parent Meeting</td>
<td>Friday, March 31 (pack out)</td>
<td>5:30- 7pm</td>
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<tr>
<td><strong>Camping Trip</strong></td>
<td><strong>April 5-6</strong></td>
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<td>9am- 3pm</td>
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<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday, April 21</td>
<td>9am- 3pm</td>
</tr>
<tr>
<td><strong>May</strong></td>
<td>Parent Meeting</td>
<td>Friday, May 4 (intro backpacking)</td>
<td>5:30- 7pm</td>
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<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday May 5</td>
<td>9am- 3pm</td>
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<tr>
<td></td>
<td>Saturday Expedition</td>
<td>Saturday May 19</td>
<td>9am- 3pm</td>
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<tr>
<td><strong>June</strong></td>
<td>Parent Meeting</td>
<td>Friday, June 8</td>
<td>5:30- 7pm</td>
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<tr>
<td><strong>Overnight Trip</strong></td>
<td><strong>June 12-14</strong></td>
<td></td>
<td>9am- 3pm</td>
</tr>
<tr>
<td></td>
<td>End of Year Celebration</td>
<td>Friday, June 22</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2.

Focus Group Questions (Youth)
Adventure Crew/Richmond Rangers
2017-2018 Cohort

Interview Date: June 13, 2018 afternoon
Ideal group size: 3-6 youth without staff
Anticipated Duration: 40-50 minutes

Introduction
(The researcher will brief before asking questions)

• Background
  o Who – me and participants
  o Why – why you, why asking questions, why is this important
  o What – type of questions,
  o When – 30-45 minutes

• Ground Rules (How)
  1. No “wrong answers,” just different opinions.
     • Say what is true for you, even if you’re the only one who feels that way.
       Don’t let the group sway you.
     • If you change your mind, just let me know.
  2. One person speaks at a time.
  3. Let’s try each of you speaks up
     • Although everyone doesn’t have to answer every question, best to hear from all during this session.
  4. What is said in this space stays in this space
     • Confidential - I promise not to report your names or who said what to your parents or program staff so that you can speak your mind freely.
     • Feel free to comment on each other’s remarks, but remember those comments stay in this space.
Questions:

Phase 1 - Learning Outcome
Experience (10 mins):
1. How would you describe your experience with the year-long Richmond Rangers program?
   a. What were your favorite parts of the program?
   b. What were the difficult or challenging parts of the program for you?
      • Was there a time that you wanted to stop coming to the program (i.e., a daylong program, family night, backpacking trip)?
      • If yes: Why did you decide to continue to come to the program?
      • If you're willing to share, please describe the most challenging moments that made you stop continuing with the program?
      • Participation barriers: e.g., time, transportation, motivation, types of activities, family/friend dynamic, other?

Benefits/Learning Outcomes
2. Can you think of things that you gained (or learned) from this program?
   a. Is <the benefit/learning> important to you? Why?
   b. How could this <the benefit/learning> possibly be helpful in the future?
   c. What helped you gain/learn <the benefit/learning>?
      a. Can you describe what happened in the program to help you learn <learning outcome>, for example, was there a particular activity, discussion, or other experience that helped you learn <learning outcome>?
      d. What are things that you would not have been able to gain if you didn't participate in the Richmond Rangers? What do you most appreciate about the program?

Skills and Access
3. You participated in many different activities this year through Richmond Rangers. Can you think of any activities that you could do on your own?
   a. If yes: What are those activities?
   b. If no: Can you explain why it would be difficult?
4. How about can you think of any activities that would be difficult to do on your own, with your friends, or with your family?
Phase 2 - Perceptions toward the nature, parks, and outdoors

Perceptions towards nature (5 min):
1. I would like play a quick game. This is not a test and there is no wrong answer.
   Here is how it works:
   a. I will give you three different words. Your job is to give as many words as possible that comes to your mind in relation to the keywords that I will give you.
   b. Let’s practice. Here are the three words, are you ready? “ice cream,” “cookies,” and “chips.” Now, your job is to come up with as many words as possible associated with those three words. Can you think of any words? [Interviewee respond with some words]. Good.
   c. OK, here is the real one, are you ready? Again, your job is to tell us what words come to your mind when you hear these three words: “outdoors,” “nature,” and “parks.” [Interviewee respond with words, and interviewer write down all the words.]
      1) Can you explain why you responded with these words?
      2) What do these words mean to you?

Perceptions towards nature (retrospective pre-program) (5 min)

b. Now, let’s pretend that we are doing the same game, but responding to the same questions before the Richmond Ranger program, back in last September. You haven’t even started the first hike with the Richmond Rangers.
1) If you would have heard those same words “outdoors,” “nature,” and “parks,” what words would you have associated them with back then?
2) Can you explain why you responded <their responses>?
3) How many of you feel that the meaning of those words has changed since you’ve been part of Richmond Rangers?
   i. If no: Why do you think it hasn’t changed for you?
   ii. If yes: Why do you think it has changed for you?
Appendix 3.

Interview Questions (Parents, Guardians, and Staff)

Learning Outcome
a. How would you describe Richmond Rangers to other parents or guardians?
b. What was your child's favorite part of the program?
c. What was the most challenging (or difficult) part of the program for your child?
d. Can you think of things that your child learned from this program?
  1. Is <learning outcome> important to your child? Why?
  2. How could this <learning outcome> possibly be helpful in the future?
  3. What helped your child learn <learning outcome>? Can you describe what happened in the program to help your child learn <learning outcome>, for example was there a particular activity, discussion, or other experienced that helped you learn <learning outcome>?
  4. Did you see differences between the first year versus second year this year?
e. You and your child participated in a variety of activities this year. Can you think of any activities that your child or family could do on your own in the future?
  1. If yes: What are those activities?
  2. If no: Can you explain why it would be difficult

Perceptions towards the Outdoors
f. Was there a time that you or your child wanted to stop coming to the program (i.e., a day-long program, family night, backpacking trip)?
  1. If yes: What were the most challenging moments that you or your child had in this program that made you reconsider continuing with the program?
    • Participation barriers: e.g., time, transportation, motivation, types of activities, family/friend dynamic, other
g. I would like play a quick game. This is not a test and there is no wrong answer. Here is how it works: I will give you three different keywords, and you will give as many words as possible that comes to your mind in relation to the keywords that I will give you. So, for instance, let's say I give you these three words: “ice cream”, “cookies”, and “chips.” Now, your job is to come up with as many words as possible associated with those three words. Can you think of any words? [Interviewee respond with some words]. Good. Let's do another one. Please tell me what words come to your mind when you hear these three words: “outdoors”, “nature”, and “parks”? [Interviewee respond with words, and interviewer write down all the words.]
  1. Can you explain why you responded with these words?
  2. What do you think the common theme is of “outdoors”, “nature”, and “parks”? What do these words mean to you?
h. Now, let’s pretend that we are doing the same game, but 10 months before. You haven’t even started the first hike with the Richmond Rangers. If you would have heard those same words “outdoors”, “nature”, and “parks”, what words would you have associated with them in back 10 months ago? [Interviewee respond with words, and interviewer write down all the words.]
  1. Can you explain why you responded such?
  2. Has the meaning changed since you’ve been part of Richmond Rangers?
  3. If no: Why do you think it hasn’t changed for you?
  4. If yes: Why do you think it has changed for you?
i. Finally, now you will you will guess what your child would respond to the same question. What would be the words that your child would associate with the words “outdoors”, “nature”, and “parks”? What would they have said before the program?
## Appendix 4.

### Adventure Crew/Richmond Rangers’ Indented Goals and Objectives

<table>
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<tr>
<th>Themes</th>
<th>Goals</th>
<th>Objectives</th>
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| Health, Physical and Social Wellness        | 1. Improve physical health                                             | a. Successfully complete a five-mile hike in three hours.  
b. Increase weekly average amount of time spent physically active by more than one hour.  
c. Indicators of physical health (TBD) will improve over the course of the program.                                                                                                                                                                                                                   |
|                                             | 2. Influence psychological wellbeing                                   | a. Indicators of psychological wellbeing (TBD) will improve over the course of the program.                                                                                                                                                                                                                                                                         |
|                                             | 3. Encourage family involvement                                       | a. Include family members in the monthly Friday night events.  
b. Families of participants will support the program and program continuation by attending the Family Nights, encouraging good attendance in the program by their children, and by involving their families in outdoor recreation activities outside of the program.                                                                                                               |
| Outdoor Recreation Skills and Leadership    | 4. Develop outdoor skills                                              | a. Set up a tent and camp kitchen without leader assistance.  
b. Load a backpack.  
c. Locate trails and routes on a topographic map.  
d. Demonstrate skills in fishing and boating.  
e. Demonstrate basic first-aid and trail safety rules.  
f. Understand how to select and wear the appropriate outdoor clothing, including hiking boots, rain gear, and proper layering.                                                                                                                |
|                                             | 5. Cultivate leadership skills                                         | a. Lead an outdoor recreation activity.  
b. Demonstrate effective communication.  
c. Demonstrate competence with group leadership.                                                                                                                                                                                                                                                                 |
|                                             | 6. Create a connection to outdoor recreation areas                    | a. Show an increased appreciation of open space in their community.  
b. Demonstrate how to access a regional park by public transpiration from their home.  
c. Participate in a hands-on conservation project.                                                                                                                                                                                                                                                   |
|                                             | 7. Create positive connections to others                              | a. Express positive attitudes toward adult leaders.  
b. Express positive attitudes toward other program participants.  
c. Become comfortable leading team-building activities.                                                                                                                                                                                                                                                                 |
|                                             | 8. Increase participation in outdoor recreation                        | d. Increase the number of visits with their family to outdoor recreation areas (including regional parks) within a six-month period.                                                                                                                                                                                                                                 |
|                                             | 9. Develop an interest in working in the outdoors                     | a. Identify a few key professional roles and positions within the park district.  
b. Identify the various job opportunities and internships available to youth in the park district.                                                                                                                                                                                                                     |
| Environmental Literacy & Stewardship        | 10. Increase knowledge about the natural environment                   | a. Identify common native plants, trees, and local fauna.  
b. Explain basic biological concepts, such as photosynthesis.  
c. Understand the importance of key environmental issues, such as clean water.                                                                                                                                                                                                                      |
|                                             | 11. Cultivate a sense of connection with the natural world            | a. Demonstrate a greater appreciation and sense of responsibility for nature and the outdoor world.                                                                                                                                                                                                                                                                    |
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