

The Nature of the Outdoors

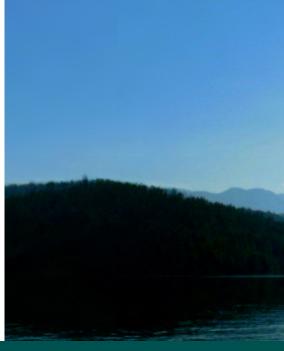
STRONGER YOUTH DEVELOPMENT THROUGH EXPLORATION





Introduction





SUZANNE **MCCORMICK**

PRESIDENT AND CEO, THE YMCA OF THE USA

Back in 1893, we ran our first summer camp at the Y. Every summer since, young people have joined us for time to learn about themselves, learn how to work with others, and have fun. Exploring the outdoors is also a key part of many of our youth programs from daycare to afterschool to sports. The joy that comes from these experiences lasts a lifetime.

The YMCA is the leading nonprofit committed to strengthening individuals and communities nationwide through opportunities to improve health, support young people, and contribute to stronger,

more cohesive communities. Guided by the core values of caring, honesty, respect, and responsibility, the Y is dedicated to giving people of all ages, backgrounds, and walks of life the opportunity to reach their full potential with dignity.

One of the three pillars of the Y is our focus on youth development. Helping young people see themselves as capable, positive, and rooted in community are important skills, where young people grow into well-rounded, emotionally intelligent, and socially responsible adults.

This report highlights the striking finding that including time to explore and reflect in the outdoors greatly enhances the Skills for Thriving that youth develop in our programs. The

impact is especially noteworthy for Latine youth who often face systemic barriers to success, and young boys, who historically develop fewer of these capabilities. Outdoor programs have the potential to help us close the achievement gap and nurture the next generation of innovative and inclusive leaders.

With support from The Annie E. Casey Foundation, we are proud to spread the word about the effectiveness of using the outdoors as a tool for addressing some of the challenges young people are facing today. We see far-reaching implications for working with young people in a wide variety of new ways.

We hope this report inspires you to get outside and explore.



KARFN PITMAN

FOUNDER AND PARTNER, KNOWLEDGE TO POWER CATALYSTS

My first experience with outdoor education was as a counselor at an educational camp for teens. I was 19 years old the first time I used a flashlight because there were no street lights, did a day hike, camped overnight or swam in a lake. I openly shared my joy and fear—of being outdoors, taking physical risks, and learning new skills—with my campers, learning with and from them. I saw the growth in them and in me that came from having time to reflect together each evening on the day's events.

Somehow, in this more expansive setting, we were all better able to see the value of skills far beyond

academics and appreciate mastery when we saw it in anyone at any age.

This critical study demonstrates that young people develop the Skills for Thriving differently in outdoor and non-outdoor programs. In outdoor programs, young people demonstrate more growth in these capacities than their peers in non-outdoor programs, which speaks to the added value of outdoor contexts. Interestingly, the research shows that the highest skill growth occurs in outdoor programs where adults guide young people to explore natural environments and offer opportunities to reflect on their outdoor experiences. More than 80% who had these guided opportunities to explore and appreciate the outdoors showed skill growth compared to just 56% of

their peers in outdoor programs without these qualities.

These findings are not surprising because adolescent brains are not immature adult brains. They are specifically wired to encourage young people to explore and take risks, testing themselves in new experiences to build the skills and confidence they will need to thrive in a rapidly changing world. Every experience offers an opportunity for reflection and growth. Experiences outside the classroom, especially in natural settings, amplify opportunities for reflection and growth. However, the quality—and consequently the impact—of these experiences matters greatly. This data highlights the importance of making engaging, high-quality programs available to all, especially middle and high school youth.

THE OUTDOORS IS WHAT YOUNG PEOPLE NEED RIGHT NOW.

Outdoor group activities uniquely promote Skills for Thriving—often called 21st century skills, soft skills, thriving indicators, socio-emotional skills. These strong "protective factors" buffer against mental health risks and are an important part of helping young people achieve personal success on their own terms.

A 2021 advisory by the US Surgeon General warned, "The challenges today's generation of young people face are unprecedented and uniquely hard to navigate." Between mental health issues and trouble maintaining positive relationships to delaying educational and employment opportunities, the severity of this problem has far-reaching consequences, including higher suicide rates, and longterm physical health risks. Many in this generation feel unprepared for life's challenges and no longer believe in their ability to achieve their own goals.

To successfully navigate these challenges, young people need to develop Skills for Thriving which are readily developed in outdoor programs. These key capacities help support young people to become agile learners and global citizens equipped to navigate personal, social, academic, and economic challenges.

Research shows the benefits are profound and long-lasting, affecting academic achievement, mental health, and future career success. Growth in these capacities is linked to decreased emotional distress, more positive







attitudes about self and others. and fewer externalizing behaviors and discipline problems.

Learning these Skills for Thriving leads to greater coping skills, resiliency, and emotion identification, which reduce symptoms of depression and anxiety. They are increasingly recognized as playing a critical role in the promotion of positive mental health and the prevention of mental health disorders among children and youth.

These capacities are typically developed through practices that directly promote experiences where youth reflect on their values and personal goals, form healthy patterns, and practice teamwork. Youth typically experience more of these practices in outdoor programs leading to greater growth.

This report highlights the striking finding that including time to explore and reflect outdoors can enhance skill development by an impressive 30%. Typically, out-of school programs see about 50% of their young people increase in these skills, but incorporating outdoor activities elevates this to a remarkable 80%.

These differences are even more pronounced for boys, who currently have higher suicide and school drop-out rates, and Latine youth, who often face systemic challenges. This breakthrough has game changing implications, offering a transformative approach that could redefine youth development, fostering greater equity and inclusion that provides a tangible way to reduce anxiety, increase physical health, and support youth to imagine a bright future. There are a wide variety of outdoor programs represented in this study. At one extreme, we have multi-day experiences deeply immersed in natural places such as the Y's Bold & Gold program. At the other end, we have activities that engage young people in exploring local gardens or nearby nature through day camps.









Executive Summary

This groundbreaking study examines the Skills for Thriving development of over 5,000 young people in outdoor programs across multiple states, comparing their growth to peers in other programs. While all different types of programming promote these capacities, the results of this study are striking, showing that engagement in outdoor programs significantly boosts Skills for Thriving, particularly among male and Latine youth, who form deeper connections with peers and mentors.

These findings demonstrate the benefits of the outdoors in cultivating a PYD culture that enhances growth. This has significant implications for out-of-school programs and highlights ways using the outdoors more intentionally could redefine youth development leading to better mental well-being, stronger relationships, and greater educational and employment engagement for youth today.





KEY FINDINGS

Young people in outdoor programs experienced a remarkable boost in several capacities, far surpassing their peers in more traditional afterschool settings. This incredible progress is fueled by the dynamic, research-based PYD practices thriving in these outdoor environments. Specifically, this study unveils the following key findings:

Greater Growth in Skills for Thriving

- Young people in outdoor programs develop more Skills for Thriving than peers who attend non-outdoor programs.
- Opportunities for exploration and reflection further amplify growth for young people in outdoor programs.

Latine youth in outdoor programs exhibited even greater differences than peers attending non-outdoor programs.

Boys in outdoor programs exhibited even greater differences than peers attending non-outdoor programs.

Stronger Positive Youth Development (PYD) Practices

Young people in outdoor programs have more research-based PYD experiences than peers in other programs, which amplifies their growth.

- 1. Boys in outdoor programs experienced an even greater number of research-based experiences than peers attending non-outdoor programs.
- Girls in outdoor programs experienced an even greater number of Peer Bonding than their counterparts attending non-outdoor programs.
- Latine young people in outdoor programs experienced an even greater number of research-based experiences than peers attending non-outdoor programs.



The Full Study



QUESTIONS & METHODS

The study was designed to address three research questions:

Are young people who attend outdoor programs more likely to develop Skills for Thriving than their peers in nonoutdoor programs?

If so, do gender, ethnicity, and age affect this growth across outdoor and non-outdoor programs?

How and to what extent do young people in outdoor programs experience key research-based PYD practices shown to promote these capacities?

Are young people more likely to experience key PYD practices shown to promote Skills for Thriving development in outdoor programs than in non-outdoor programs?

Do gender, ethnicity, and age play a role in PYD experiences across outdoor and non-outdoor programs?

How important are key outdoor experiences in Skills for Thriving growth?

Which research-based experiences are most predictive of growth?

The primary approach to answer these questions was a secondary analysis of data collected through the Hello Insight (HI) platform. Hello Insight is an online platform designed to support the mental health and well-being of young people through culturally relevant assessments, real-time data-driven recommendations, and accessible resources for staff working in a wide variety of youth-serving organizations.

Since 2016, HI has amassed data from nearly 340,000 young individuals engaged in over 6,700 afterschool programs nationwide, spanning a spectrum of activities from arts to camps to leadership programs. Grounded in research, the underlying theory of change for this tool has proven that when young people experience key research-based positive youth development practices, their Skills for Thriving are amplified, contributing to long-term thriving, well-being, college and career readiness, and academic success.

In 2020, Hello Insight introduced HI Outdoors, a specialized tool embedded in the platform to offer a cost-effective measurement, evaluation, and learning solution for outdoor programs. Developed with support from The Annie E. Casey Foundation, the Children & Nature Network, and the YMCA Bold & Gold program, HI Outdoors incorporates 5 HI capacities, along with three supplementary capacities tailored to the objectives of outdoor programming. Additionally, three Outdoor experiences were integrated to mirror the typical engagements encountered in outdoor programs (See Table 1).

TABLE 1

List of Capacities and Experiences in Hello Insight: Outdoors

Capacities

CORE

- Combined Core A scale that aggregates Social Skills, Academic Self-Efficacy, Self-Management, Contribution, and Positive Identity.
- Academic Self-Efficacy A young person's motivation and perceived mastery over their own learning, school performance, and potential to attain academic success
- Positive Identity A young person's internal sense of who they are and confidence to explore the multiple facets of their identities
- **Social Skills** The ability of a young person to take others' perspectives into account and to develop a sense of caring and empathy
- Contribution A young person's desire to engage with and contribute to family, community, and society
- **Self-Management** The ability of a young person to regulate their emotions and behavior, take positive risks, and persist through life's challenges

OUTDOOR

- **Combined Outdoor** A scale that aggregates Connection to the Outdoors, Well-being in the Outdoors and Support for the Environment.
- Connection to the Outdoors A young person's bond with nature or the outdoors
- Well-Being in the Outdoors A young person's feeling that their physical and mental wellness is enhanced by being in nature or the outdoors
- **Support for the Environment** A young person's concern for environmental problems and their desire to be part of the solution.

Experiences

POSITIVE YOUTH DEVELOPMENT

- **Promote Peer Bonds** A young person's experience with an adult who helps them work with peers in teams and groups, creating a safe space to learn with and from one another, exploring similarities and differences, and developing deep bonds and relationships.
- Engage Authentically A young person's experience with an adult who takes the time to get to know them by listening and understanding who they are—their cultural and lived experiences, their interests, and their passions
- **Challenge Growth** A young person's experience with an adult who encourages them to take risks and perform beyond their own expectations.
- **Expand Interests** A young person's experience with an adult who supports them to try new things, broaden their horizons, learn about other people's cultures and perspectives, and explore their own identities.
- **Manage Goals** A young person's experience with an adult who assists them in setting and managing goals that are important to them and that build upon their passions and interests
- **Share Power** A young person's experience with an adult who ensures that their voices and opinions matter

OUTDOOR EXPLORATION

- Foster Outdoor Exploration A young person's experience with an adult who encourages them to explore natural environments and develop a personal interest in the outdoors
- **Reflect on Outdoor Exploration** A young person's experience with an adult who takes time to create attentive, critical, and exploratory thoughts about spending time in the outdoors

These additional capacities and experiences for outdoor programs were identified through a thorough review of the literature, interviews with key experts in the field, and focus groups with practitioners. HI Outdoors underwent testing with over 10,000 young people across more than 80 outdoor programs nationwide, with all measures validated as reliable and effective. Furthermore, the tool's theory of change was confirmed, demonstrating that the key experiences measured by the tool enhance Skills for Thriving and increase connection to and support for the outdoors, and a sense of well-being in outdoor settings (see Figure 1).

Hello Insight was invited by the YMCA and the Annie E. Casey Foundation to mine our data to better understand the unique impact of outdoor programming on young people's development of Skills for Thriving. The results from this study are represented in this ground-breaking report that highlights the unique impact of outdoor programming on young people's development of Skills for Thriving and long-term positive outcomes.

In this report, we use the following terms: Nature-based education (aka nature-based learning, outdoor learning) to refer to the field of youthserving organizations that connect young people to nature and the outdoors. We also use the term outdoor programs to refer to the activities and strategies implemented by youth-serving organizations to promote young people's development through experiences in nature.



FIGURE 1 Hello Insight: Outdoors | Research-Based Theory of Change

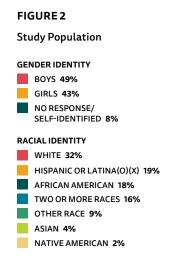
What young Young people What your people develop thriving! program does **Outdoor Exploration** Outdoor Academic Performance Foster Outdoor Exploration Connection to the Outdoors Career/Work Readiness Reflect on Outdoor Exploration Support for the Environment Health and Wellness Well-Being in the Outdoors Positive Behavior Reduced Risky Behavior **Positive Youth Development** Core Challenge Growth Academic Self-Efficacy **Engage Authentically** Contribution **Expand Interests** Positive Identity Manage Goals Self-Management **Promote Peer Bonds** Social Skills **Share Power** SOCIAL CAPITAL SOCIAL CAPITAL RESEARCH-BASED EXPERIENCES SHORT-TERM OUTCOMES LONG-TERM OUTCOMES

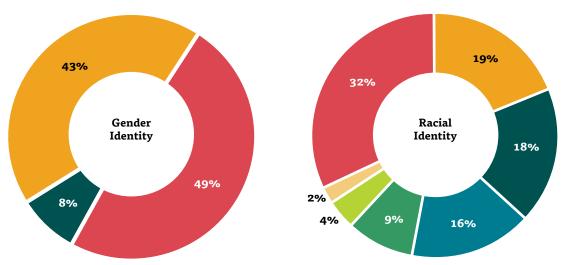
This study aimed to understand the impact of outdoor programs on the development of Skills for Thriving across contexts.

To ensure a robust comparison between participants in outdoor and non-outdoor programs, a propensity score matching strategy was implemented. Participants who completed pre and post-surveys for HI Outdoors were matched with counterparts responding to HI surveys (e.g., youth attending out-of-school programs without a focus on exploring nature or the outdoors). Matching factors include age, gender, ethnicity, Core, and Social Capital scores at the program's commencement. This ensured similarity across participants in outdoor and non-outdoor programs, enabling any disparities observed at the program's conclusion to be attributed to the effects of outdoor programming.

Ultimately, the study included nearly 10,000 young individuals; approximately half attended outdoor programs, and the other half attended non-outdoor programs. In outdoor and non-outdoor programs, the mean age was 13, and the range was 12 to 18. Nearly half (49%) identified as boys and 43% identified as girls. Additionally, about a third identified as White (32%), 19% as Hispanic or Latina(0)(x), 18% as African American, and 16% as two or more races (see Figure 2).

Outdoor programs included mostly day and summer camps (70%), followed by wilderness adventure programs (24%). Far fewer were urban gardening programs (2%), inquiry-based exploration programs, such as zoos and botanical gardens (2%), and workshops focused on local flora and fauna (1%).









GREATER SKILL GROWTH

FINDING #1

Young people in outdoor programs develop more Skills for Thriving than peers who attend non-outdoor programs.

Young people involved in outdoor programs demonstrated more growth overall than peers in other programs. In particular, they developed significantly more Social Skills, Academic Self-Efficacy, and Self-Management than their counterparts in non-outdoor programs (see Figure 3). These outcomes are all well aligned with the CASEL Framework of well-known capacities, which research tells us fosters a spectrum of positive long-term outcomes among young people, such as improved academic performance, enriched social connections, reduced engagement in risky behaviors, a greater sense of purpose, and increased care and concern for the environment (see Box 1).

BOX 1

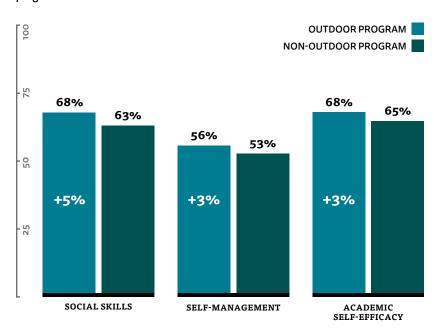
Social skills are crucial for fostering positive social interactions and promoting favorable connections between young individuals and their surroundings (Payton et al., 2008).

Academic self-efficacy correlates with higher academic achievements, fewer disciplinary issues, and long-term career readiness (Afterschool Alliance, 2009; Zins et al., 2004).

Self-management correlates with longer-term outcomes such as higher academic performance, lower engagement in negative behaviors, and improved social acceptance by peers (Bandy & Moore, 2010).

FIGURE 3

Difference in the percentage of young people who increased their Skills for Thriving after participating in outdoor versus non-outdoor programs-rounded to the nearest number.



FINDING #2

Opportunities for exploration and reflection further amplify growth for young people in outdoor programs.

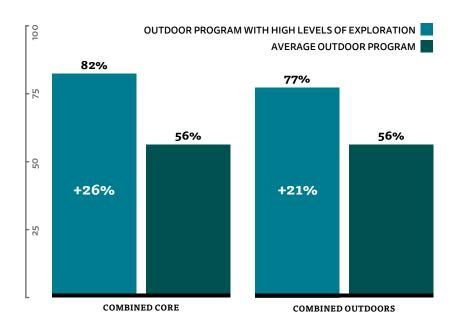
Among participants in outdoor programs, 56% demonstrated an increase in their Combined Core capacities. However, this figure rose substantially to 82% when adults guided young people to explore natural environments and reflect on their outdoor experiences, a set of experiences termed Outdoor Exploration (see Figure 4).

The impact of Outdoor Exploration on Outdoor Skill growth displayed a parallel trend. Specifically, 77% demonstrated improvement when supported by adults in Outdoor Exploration (see Figure 4). The Combined Outdoor scale aggregates Connection to the Outdoors, Support for the Environment, and Well-Being in the Outdoors. These capacities are important because, in the short term, young people with a strong connection to the outdoors tend to be more engaged in diverse forms of independent and creative play. In the long term, they are more likely to have a sense of personal autonomy, an improved





FIGURE 4 Percent of young people who showed significant growth in an average outdoor program versus an outdoor program with high levels of exploration—rounded to the nearest number.



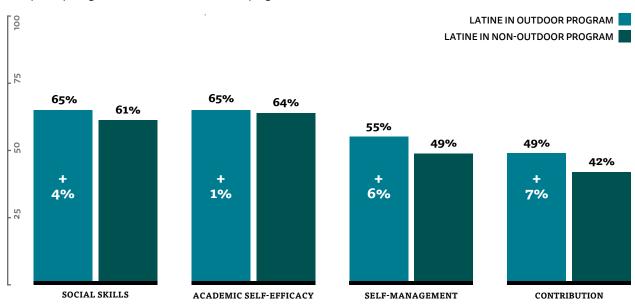




self-concept, and a greater capacity to take action and be decisive (Children and Nature Network, October 2020). Young people who support the environment are likelier to express a greater sense of caring and altruistic attitudes, especially toward nature (Whitburn et al., 2019). Young people who feel that their physical and mental wellness is enhanced by being in nature or the outdoors are more likely to have a greater purpose in life, autonomy, and personal growth (Nisbet & Zelenski, 2013).

When looking more closely at the data, we also see interesting differences across ethnicity and gender identities. While all young people in outdoor programs are developing Skills for Thriving, the data reveals notable distinctions in growth for boys and Latine youth compared to their peers in other types of out-of-school time programs. On the other hand, while girls attending outdoor programs generally performed comparably to their peers in other programs in most areas, they exhibited significant enhancements in social skills and academic self-efficacy compared to girls in non-outdoor programs. However, our analysis also highlights the limitations of the current data. For instance, there was not enough data to explore outcomes for young people who chose not to respond or self-identified gender differently, underscoring the need for more inclusive data collection to better understand and address their experiences and growth in outdoor programs. More information about each of these findings is shown below.

FIGURE 5 Difference in the percentage of young Latine people who increased their Skills for Thriving after participating in outdoor versus non-outdoor programs—rounded to the nearest number.



Latine youth in outdoor programs exhibited even greater differences than peers attending non-outdoor programs.

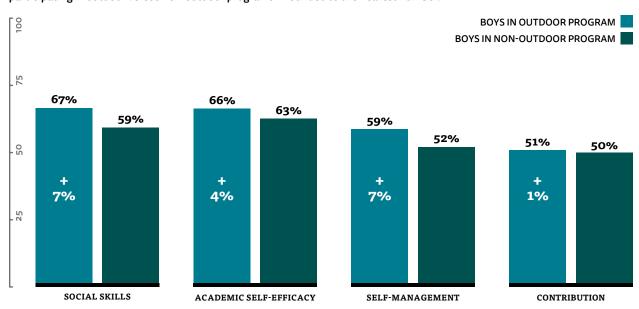
When analyzing differences in growth across ethnicities, the most pronounced were observed among young Latine individuals. Specifically, 6% more young Latine people developed Combined Core Skills for Thriving when participating in outdoor programs compared to peers in other programs. Furthermore, 7% more Latine youth participating in outdoor programs showed significant growth in Contribution compared to their counterparts in other program types. Contribution is important because it has been correlated with a propensity to engage civically as adults, maintain positive links to the institutions of civic society, and improve social development (Lerner et al., 2005). Substantial differences in growth were also noted in Self-Management and Social Skills (see Figure 5).

Boys in outdoor programs exhibited even greater differences than peers attending non-outdoor programs.

Boys participating in outdoor programs demonstrated notably higher levels of self-management, social skills, and academic selfefficacy compared to boys in non-outdoor programs (see Figure 6).



FIGURE 6 Difference in the percentage of boys who increased their Skills for Thriving after participating in outdoor versus non-outdoor programs—rounded to the nearest number.





BOX 2

Engaging Authentically with young people and helping them to promote peer bonds are foundational PYD experiences that lay the groundwork for all others. In other words, if you don't have strong trusting relationships within a group, you cannot challenge young people, help expand their interests, or share power with them (Hello Insight, 2020, 2021).

Engaging Authentically with young people is a foundational practice when supporting young people's social and emotional development. Research shows that building authentic relationships with young people promotes adolescent development and longterm thriving. (Larson, R. & Dawes, N. 2015, Search Institute, 2020).

Promoting Peer Bonds is also foundational, increasing self-confidence and life skills; academic motivation; and leadership skills and disposition (Search Institute, 2020).

STRONGER PYD EXPERIENCES THROUGH EXPLORATION

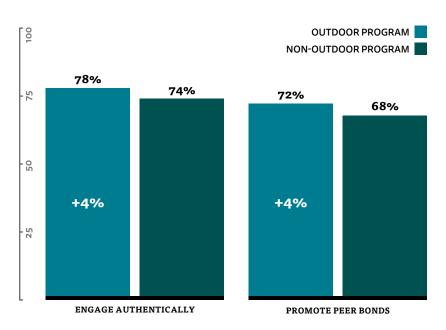
FINDING #3

Young people in outdoor programs have more researchbased PYD experiences than peers in other programs, which amplifies their development.

Young people engaged in outdoor programs experienced more research-based PYD practices than their peers in non-outdoors programs. Given the promising trajectory of skill growth among youth attending outdoor programs, it's unsurprising that they frequently encountered two fundamental PYD practices more often than their peers in other types of programs: Engage Authentically and Promote Peer Bonds (a 4% differential, see Figure 7). The research underscores that these experiences are pivotal in enhancing youth development (Search Institute, 2020). An increasing body of evidence suggests that these types of positive interactions between adults and young people promote their development (Larson & Dawes, 2015; Search Institute, 2020) (see Box 2).

FIGURE 7

Difference in the percentage of evidence-based practices implemented across outdoor and non-outdoor programs—rounded to the nearest number.



Boys in outdoor programs experienced an even greater number of research-based experiences than peers attending non-outdoor programs.

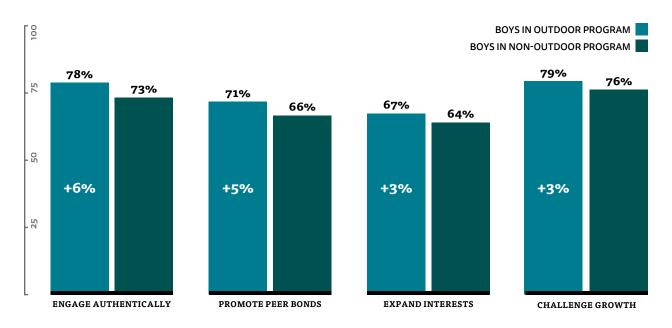
Boys in outdoor programs typically experienced higher levels of research-based practices than peers in other programs. They encountered adults using two foundational PYD practices, Engage Authentically and Promote Peer Bonds, more frequently than their counterparts. Additionally, they also observed adults implementing other PYD practices with more frequency, such as Challenge Growth and Expand Interests (see Figure 8).

These practices are vital for a young person's development as Challenging Growth plays a crucial role in fostering resilience (Zhang et al., 2011), enhancing long-term goal focus (Steele, 2011), improving academic performance (Bowen et al., 2012), and increasing civic participation (Mesurado et al., 2014). Expanding Interests has been demonstrated to boost school engagement and high school graduation rates, promote healthy behaviors while reducing risky ones, enhance overall life satisfaction (Search Institute, 2020), foster a sense of contribution and altruism, and nurture a healthy positive identity (Benson et al., 2006; Scales et al., 2011).





FIGURE 8 Difference in the percentage of evidence-based practices reported by boys across outdoor and non-outdoor programs—rounded to the nearest number.





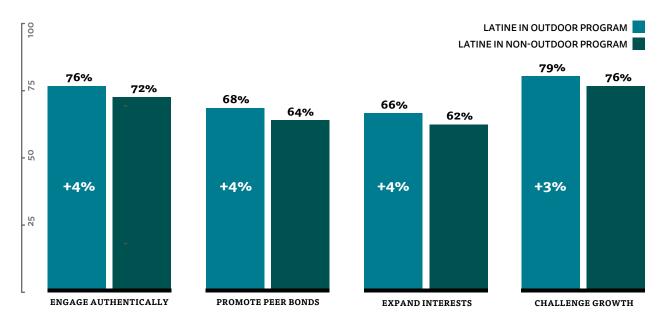
Girls in outdoor programs experienced an even greater number of peer bonding opportunities than their counterparts attending non-outdoor programs.

Girls participating in outdoor programs reported more peer bonding (73%) than those in other program types (69%). This discovery is particularly intriguing, especially given their notable differences in social skill development compared to peers in other programs, often fostered through peer-to-peer interactions.

Latine young people in outdoor programs experienced an even greater number of PYD practices than peers attending non-outdoor programs.

When exploring differences in experiences across ethnicities, Latine young people showed the greatest positive differences. Latine youth participating in outdoor programs indicated more opportunities to connect with peers, explore their interests, and cultivate stronger relationships with adults than their peers in alternative programs (see Figure 9).

FIGURE 9 Difference in the percentage of evidence-based practices reported by young Latine people across outdoor and non-outdoor programs—rounded to the nearest number.



Conclusion

Based on the data presented, several key conclusions can be drawn regarding the impact of outdoor programs on young people's Skills for Thriving:

While young people who participate in all different types of PYD programs develop Skills for Thriving, those who engage in outdoor programs demonstrate significantly more growth than their peers who attend other types of out-of-school programs, particularly in Social Skills, Academic Self-Efficacy, and Self-Management.

- Participation in outdoor programs particularly benefited boys and Latine program participants, who showed significantly more growth than their peers in other programs. These results are likely because both groups reported experiencing more research-based PYD practices than their peers in other out-ofschool programs.
- 2. Outdoor Exploration is pivotal in enhancing the growth of Skills for Thriving among participants in outdoor programs. Exploration of natural environments and reflection on those interactions significantly amplifies their development. When these features are found in a program, more than 25% more young participants develop these capacities.
- 3. Outdoor programs offer a rich environment for cultivating Skills for Thriving through research-based PYD practices such as Engage Authentically and Promote Peer Bonds. Young people who attend outdoor programs experience significantly more of these practices than their peers in other programs. These practices, which prioritize authentic interactions between adults and peers, contribute significantly to growth among participants.

In conclusion, outdoor programs provide a fertile ground for the holistic development of young people, offering opportunities for experiential learning, connection with nature, and meaningful interactions that facilitate Skills for Thriving growth and contribute to positive long-term outcomes.



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