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# **Evaluation of Wilderness Inquiry's Urban Wilderness Explorers Program**

November 2021

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## *Research, Development, and Engagement to Improve Education*

### **How to Cite this Report**

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# Executive Summary

## Introduction

Wilderness Inquiry (WI) is a nonprofit organization located in Minneapolis, MN. Founded in 1978, [WI's mission](#) is “to connect people of all ages, backgrounds, and abilities to each other and the natural world through shared outdoor adventures.” The organization offers a variety of programs to youth, families, and adults, including Canoemobile (a “floating classroom” program for youth), Families Together (aimed at supporting outdoor experiences for families of children with disabilities), and Gateway to Adventure (a program for adults with disabilities).

In June and July of 2021, WI collaborated with [Great MN Schools](#) (GMS) to run the Urban Wilderness Explorers (UWE) program, a six-week summer school course conducted in outdoor settings. Students in grades K-8 from six Twin Cities charter schools participated in the program, with programming located at five sites: Hennepin Schools, Hiawatha College Prep, KIPP Northstar MN, New Millennium Academy, and Prodeo Academy. Students engaged in UWE programming for approximately three hours each weekday across six weeks, with the other half of the school day dedicated to a focus on building literacy and math skills (this academic programming was run by the charter schools). WI requested an evaluation of this new program offering to examine outcomes and inform future programming and planning. They sought information on the extent to which students’ social-emotional skills and abilities were impacted by participation in the UWE program, as well as the program’s impact on students’ relationship to nature, the land, and their own communities.

## Findings for Each Evaluation Question

### ***Question 1: To what extent do youth who participate in UWE demonstrate change in their social-emotional skills?***

- 79% of UWE staff agreed that students “*strengthened their social-emotional learning skills*” through participation in UWE.
- UWE staff and leadership reported forming strong bonds and relationships with students engaged in the UWE program. Leaders (specifically, WI’s Associate Executive Director and Education Program Manager) reported feeling strong positive emotion and passion for the effect UWE appeared to have on student belonging and social connection following an unprecedented and stressful period of isolation for most students.
- On average, most students received relatively high overall social-emotional competency scores during initial and follow-up student surveys.
- Two of the five program sites saw slight improvements in student social-emotional competency scores between the two survey administrations.
- In general, levels of agreement with most social-emotional student survey items remained consistent across the two survey administrations (i.e., little impact was observed).
- Both interviewed leaders provided a rating of 4 out of 5 (1 = “*not at all*” to 5 = “*a great*”).

*deal*”) when asked to rate their perceived impact of the UWE program on students strengthening their social-emotional skills.

- Leaders emphasized that one of the main social-emotional outcomes the program had been effective at achieving was building high-quality relationships between students and staff.

***Question 2: To what extent do youth who participate in UWE demonstrate on-task behavior and engagement in learning (during UWE programming; during academic programming)?***

- UWE staff reported that the engaging, hands-on lessons in the UWE curriculum helped students stay on-task and promoted students’ interest in nature and the outdoors.
- Based on weekly staff survey data, charter staff reported that students were generally highly on task (average of 79% of the time) and engaged during their classes (average of 76%). UWE staff reported somewhat lower levels of student on-task and engaged behavior during their outdoor programming (on task average of 65%, engaged average of 61% of the time).
- Both staff groups reported that on-task behavior levels were slightly higher than levels of engagement in learning and that on-task and engaged behaviors occurred at higher percentages during morning sessions than during afternoon sessions.
- Both staff groups indicated that on-task behavior and engagement in learning increased over time throughout summer programming.
- UWE staff reported variable experiences with student engagement behaviors by site (engagement was high at some sites and quite low at others). This result aligned to staff level of experience, with sites led and staffed by more experienced educators observing higher engagement ratings than those with less experienced staff.
- Most students provided relatively high ratings of their engagement in outdoor classes during both an initial and follow-up survey.
- On average student ratings of their engagement in UWE classes was higher during the initial student survey than the follow-up student survey (i.e., they reported that engagement had decreased, on average). However, there were several notable limitations to student survey data collection, including that it is unclear the extent to which the student sample was the same across both survey administrations, which may have impacted this result.
- Leaders provided an average rating of 3.5 out of 5 (1 = “not at all” to 5 = “a great deal”) when asked to rate their perceived impact of the UWE program on students being engaged in learning, noting that student engagement was a challenge for staff in the beginning but improved significantly over time.

***Question 3: To what extent do youth who participate in UWE demonstrate change in the areas of persistence, environmental stewardship, and future science/career interests?***

- Most staff (96%) agreed that students “built skills and confidence in the outdoors” through engagement in UWE. In contrast, only 54% agreed that students “became stewards of their environment.” This may be due to environmental stewardship being a more distal expected outcome of the UWE program, compared to the more immediate and initial response of first building confidence in the outdoors (see evaluation recommendations).
- Students generally provided high ratings on Persistence, Environmental Stewardship, and Future Science/Career Interest items across both administrations of the student survey.

However, when comparing results between survey administrations, only minor differences in mean ratings were seen across sites, times of day, grade levels, and survey iterations.

- However, two items saw a relatively notable increase over time: *“I can be successful when I try something scary”* (5.1% increase in agreement) and *“I am interested in jobs where I would work in nature”* (2.6% increase).
- Leaders reported that staff often told stories about students initially not having experience with nature because of where they lived, the lack of resources they had available, and their lack of overall awareness of resources. By the final week of programming, leaders reported that students were regularly observed promoting and championing nature-loving behavior and developed a genuine curiosity for nature and their environment (e.g., protecting ants, sharing what they learned with family/friends outside of the UWE context).
- Overall, staff reported to WI leaders that they received positive student reports regarding their enjoyment and engagement in the UWE program and nature.
- Leaders provided an average rating of 5 out of 5 (1 = *“not at all”* to 5 = *“a great deal”*) for perceived impact of the UWE program on students building skills and confidence in the outdoors and 4 out of 5 regarding the impact UWE had on supporting students to become stewards of their environment.

***Question 4: To what extent was the UWE program implemented: As intended? In a way that met program goals?***

- A large majority of UWE staff agreed that they liked the UWE program and their job, but few agreed that the training they received sufficiently trained them to implement UWE and only some reported that UWE was easy to implement.
- Less than two-thirds of staff reported feeling confident in their ability to deliver UWE and that they were able to implement UWE programming with fidelity.
- UWE staff provided high ratings about the extent to which WI leaders were supportive, though there was somewhat less agreement that WI leaders established clear standards and expectations for implementing the program.
- UWE staff largely agreed that students gained skills and confidence in the outdoors, had time for fun and free play, and generally benefited from the program, but only some staff agreed that students gained environmental stewardship and social-emotional skills.
- Most charter school survey respondents reported that they liked UWE and its staff, that UWE was well-coordinated in relation to their own programming, and that the UWE program is important and offers potential to positively impact students. Notably, WI leaders reported that Great MN Schools administrators provided similar positive feedback about the UWE program overall.
- Leaders reported that the UWE program goals were mostly met. Implementation was particularly strong in relation to goals focused on building positive relationships with students and supporting students to enjoy and become stewards of their environment.
- Leaders indicated that implementation quality was generally high across most sites. Site-based leadership arose as a particularly critical component of high-quality implementation of programming.
- Leaders reported that the main strengths of the UWE program included staff building strong

relationships with students, helping students build skills and confidence in the outdoors, site-based leadership's initiative, and staff engagement in delivering the program.

- UWE programming appeared to not only have a direct impact on the students that attended but a potential ripple effect on the communities within which they were situated (e.g., lessons taught diffused outside of the program and into family discussions and interactions, UWE staff and student utilization of local green spaces drew attention to underutilized and neglected community resources).

***Question 5: In what ways could UWE programming be improved in the future?***

- Most qualitative feedback from UWE staff on areas for future improvement focused on modifications to the curriculum that could: 1) make lessons more engaging and active, 2) better meet student developmental needs, or 3) be more responsive to student cultural backgrounds and needs.
- UWE staff reported a need to improve partnerships with the schools and to receive clearer instructions as to what was needed to run the program on a day-to-day basis.
- Charter staff indicated that UWE staff would benefit from training on diversity, equity, inclusion, and biases, as well as training on culturally responsive, positive behavior interventions and supports. Charter staff also felt the UWE lessons could be better differentiated based on age groups.
- Leaders identified that the training could be improved by allocating more time for training and integrating special topics focused on cultural responsiveness and positive behavior interventions and supports.
- Staffing approaches and partnerships with external agencies (e.g., AmeriCorps, schools) could be strengthened to enhance stability at the outset of programming, as turnover appeared to impact program equilibrium.
- Leaders indicated that they would like to hire experts in culturally responsive behavior management, curriculum development for students of different ages, and environmental studies/nature content to improve training and program activities.
- Leaders indicated that they allowed schools to customize their schedules, which caused difficulties for UWE program coordination. In the future they would like to enforce more standardized schedules across and within sites (and/or work with fewer sites).

**Recommendations**

The following section summarizes recommendations and next steps for UWE and/or similar WI programming. Some of these points were raised and are already being acted upon by Wilderness Inquiry, but we also include new suggestions that arose as a result of this report.

***Staff Recruitment and Training***

- Start the hiring process earlier (though this may still have been problematic given the difficulty with hiring across all industries during the summer of 2021).
- Strengthen partnerships and communication with outside organizations such as Americorps and partner schools.

- Allocate more team working time to UWE staff being onsite with school staff to action plan their space and the curriculum in a more comprehensive and detailed fashion.
- Lengthen the training from four days to two weeks. Alternatively, change the hiring criteria to require a minimum level of experience working in educational settings.
- Allocate more time for training staff on cultural responsiveness, positive behavior interventions and supports, and implicit/explicit biases.
- Provide UWE staff with access to support on culturally responsive positive behavior interventions and support *throughout* the programming period, not just during initial training (e.g., coaching/consulting sessions, workshops throughout program delivery).

### ***Program Implementation***

- Develop clearer agreements or contract with partnering schools regarding the school's responsibilities, services, and overall involvement in UWE activities, specifically regarding setting norms and support/staffing to help with behavior management.
- Hire and/or consult with content experts in curriculum development for students of different ages and environmental studies/nature content to improve program activities and better differentiate them by age group.
- Establish and communicate clearer standards and expectations for implementation of the program for UWE staff during initial training and throughout program delivery.
- Establish regular fidelity checks (observations) for all UWE staff.

### ***Program Goals & Evaluation***

- For future evaluations of UWE or similar new WI programs, focus evaluation on factors related to staff training and implementation of the program.
- Engage in a more systematic approach to developing program goals and objectives (e.g., formal development of a logic model using a tool such as the [W.K. Kellogg Foundation Logic Model Development Guide](#)).
- Integrate the program's focus on developing strong positive relationships between staff and youth into the stated UWE program goals (and measure this in greater detail in future evaluations).
- Secure additional funding to support a more coordinated and robust approach to evaluating student outcomes (in addition to evaluating implementation factors, as outlined above).

### ***General Recommendations and Next Steps***

- Leaders plan to complete a broad debrief with program staff and leadership.
- Leaders would like to explore alternative models for the UWE program (e.g., implementing the program in fewer sites or for shorter periods of time).
- Leaders would like to make substantial structural and content changes to keep the program "fresh" for students who engage in UWE multiple years in a row and ensure that content is developmentally appropriate for the age range of students attending the program.
- Lastly, we recommend using the lessons learned from the summer 2021 UWE program implementation to inform all WI programming moving forward, especially learning tied to factors that strengthened or inhibited staff ability to implement the program with fidelity.

# Introduction

## Purpose of the Evaluation

Wilderness Inquiry (WI) is a nonprofit organization located in the Twin Cities area of MN. Founded in 1978, [WI's mission](#) is “to connect people of all ages, backgrounds, and abilities to each other and the natural world through shared outdoor adventures.” The organization offers a variety of programs to youth, families, and adults, including Canoemobile (a “floating classroom” program for youth), Families Together (aimed at supporting outdoor experiences for families of children with disabilities), and Gateway to Adventure (a program for adults with disabilities).

During the summer of 2021, WI collaborated with [Great MN Schools](#) (GMS) to deliver a newly developed summer school program in Twin Cities charter schools. As an organization, [Great MN Schools' goal](#) is to ensure “*the same quality education for all students,*” noting that, “*We're committed to transforming schools for our kids and our city. Every student deserves grade-appropriate curriculum and strong instruction, provided by teachers who are engaged, prepared, and supported. They deserve a learning experience that meets their academic, social-emotional, and cultural needs.*”

In June and July of 2021, WI collaborated with Great MN Schools to run the Urban Wilderness Explorers (UWE) program, a six-week summer school course conducted in outdoor settings. Students in grades K-8 from six Twin Cities charter schools participated in the program, with programming located at five sites: Hennepin Schools, Hiawatha College Prep, KIPP Northstar MN, New Millennium Academy, and Prodeo Academy. Students engaged in UWE programming for approximately three hours each weekday across six weeks, with the other half of the school day dedicated to a focus on building literacy and math skills (this academic programming was run by the charter schools). Goals of the UWE program included:

1. Students will strengthen their social-emotional learning.
2. Students will build skills and confidence in the outdoors.
3. Students will become stewards of their environment.
4. Students will have time for fun and free playtime so they can self-explore.

WI requested an evaluation of this new program offering to examine outcomes and inform future programming and planning. They sought information on the extent to which students' social-emotional skills and abilities were impacted by participation in the UWE program, as well as the program's impact on students' relationship to nature, the land, and their own communities.

## Evaluation Questions

This report addresses the following set of evaluation questions:

1. To what extent do youth who participate in UWE demonstrate change in their social-emotional skills?

2. To what extent do youth who participate in UWE demonstrate on-task behavior and engagement in learning?
  1. During UWE programming?
  2. During academic programming?
3. To what extent do youth who participate in UWE demonstrate change in the areas of persistence, environmental stewardship, and future science/career interests?
4. To what extent was the UWE program implemented...
  1. As intended?
  2. In a way that met program goals?
5. In what ways could UWE programming be improved in the future?

### **Project Team**

The project was led by Laura Potter, Ph.D., Research Associate at CAREI. Dr. Potter has extensive experience working in PreK-12 schools as well as conducting formal program evaluations. Her experience includes serving as a School Psychologist and site-based Multi-Tiered Systems of Support (MTSS) Lead in Minneapolis Public Schools and conducting internal program evaluation work with the Northside Achievement Zone (NAZ) in North Minneapolis. She has a strong background in survey design and development and has demonstrated the ability to utilize quantitative and qualitative methods, prepare reports for various audiences, and manage projects so work is completed on time and within budget. Madeline Larson, M.A., worked in collaboration with Dr. Potter to complete project activities. Mx. Larson has a background in research, development, and use of measurement tools aimed at examining implementation and youth social-emotional outcomes.

## Methods

Information for this evaluation was collected during the months of June 2021-August 2021 through a student survey, weekly staff surveys about student engagement, an end-of-program staff survey, and interviews with members of the WI leadership team. This section describes the methods used for data collection in greater detail.

### End-of-Program Staff Survey

On the final Thursday of the summer school program (July 29, 2021), staff from UWE and charter schools were prompted to complete the online End-of-Program Staff Survey via email or text (see Appendix A). Staff responded to 6 demographic questions (all respondents), several closed-ended Likert scale items (6 items for charter school staff, 19 items for UWE staff), and 2-3 open-ended questions regarding strengths and needs of the summer school program. Participation was optional for all educators, but both UWE and charter staff were offered a \$10 gift card if they completed at least two out of the five weekly surveys as well as the end-of-program survey.

### Weekly Student Engagement Surveys

Summer program staff from the UWE program and charter schools were prompted to respond to a brief weekly online survey regarding student on-task behavior and engagement every Wednesday afternoon during the 2nd-6th weeks of UWE programming (see Appendix B). This survey included 11 questions in which respondents indicated what times they taught that day (morning and/or afternoon on the most recent Wednesday), which grade levels they taught, and the approximate percentage of time students had been “*on-task*” (defined as “*actively or passively participating in the assigned task or ongoing activity*”) and “*engaged in learning*” (defined as “*demonstrating attention, curiosity, interest, excitement, or passion in what they are learning or being taught*”). Survey links were sent on Wednesday afternoons each week via email or text (preference for one or both was indicated by staff on a sign-up sheet via a short online survey). UWE staff were informed of this weekly survey during their initial training for the UWE program, while charter school staff were informed of the surveys through their buildings’ summer school leaders. As noted above, participation was optional, but all staff were offered a \$10 gift card if they completed at least two out of the five weekly surveys as well as the end-of-program survey. In total, 33 staff participants met these criteria and were emailed or texted a \$10 gift card.

Links to the End-of-Program Staff Survey and these weekly surveys were sent directly to UWE staff email addresses and/or phone numbers. However, the link could only be sent directly to charter staff who volunteered their contact information (elicited through a google form), so this survey was also distributed to charter staff through email to the summer programming supervisor at each site with a request that it be distributed by that supervisor. This lack of direct access to contact details for all staff employed by charter schools likely played a role in the limited and variable responses received from charter staff across both surveys (described in the results below).

## Urban Wilderness Explorers Student Survey

Students who participated in the Urban Wilderness Explorers (UWE) program were asked to complete a student survey via a paper scantron form on two occasions - once within the first two weeks of the program and once during the final week of the program. Wilderness Inquiry (WI) staff distributed the surveys to their student groups on both occasions and read all instructions and questions aloud to guide students as they completed the surveys (see Appendix C for administration instructions; see Appendix D for a copy of the survey). All students who were in attendance on the days the survey was administered were asked to participate (except Kindergartners, who demonstrated difficulty with the task and whose data were therefore excluded from the analyses). The survey included four demographic questions and a total of 36 questions with Likert response scales, each of which was derived from an evidence-based survey. The three surveys these items came from included the Delaware Social-Emotional Competencies Scale, the Delaware Student Engagement Scale, and the Wilderness Inquiry Survey of Experiences (WISE), described below.

Notably, each survey described below was designed and validated for students in either grades 3-12 (DSECS-S, DSES) or grades 5-12 (WISE). To allow younger UWE students to complete the survey, the form was adapted to include smiley face icons above the response choices matched to each level of agreement with the statements to provide visual prompts to assist those still learning to read. Additionally, all instructions and survey items were read aloud to students by UWE staff as student completed the surveys, and only students grade 4 and above were asked to respond to the WISE items. Although DSECS-S and DSES items were initially administered to kindergartners, after UWE staff had difficulty with administration to students this young, students in kindergarten were no longer asked to participate and all kindergartner responses were excluded from the dataset.

### ***Delaware Social and Emotional Competency Scale (DSECS-S)***

The Delaware Social and Emotional Competency Scale (DSECS-S)<sup>1</sup> was designed to assess students' social and emotional competencies that are aligned with the Center for Academic and Social Emotional Learning (CASEL) framework.<sup>2</sup> Consisting of 12 items, this scale is designed to provide schools with a brief tool for assessing SEL skills, as perceived by students. Four of the CASEL domains are assessed: self-management (3 items), responsible decision-making (3 items), relationship skills (3 items), and social awareness (3 items), resulting in one overall SEL score. The survey excludes evaluation of CASEL's fifth domain, self-awareness, due to difficulty in measuring student self-awareness (particularly through just a few survey items and across multiple age levels).

Students responded to each item using a 4-point Likert scale, with response choices ranging from “not like me at all” (score of 1) to “very much like me” (score of 4), with one item (“I blame others when I’m in trouble”) being reverse coded so a high score would indicate a positive trait. A total social-emotional competency score was derived by summing raw scores across all 12 items.

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<sup>1</sup> Mantz, L., Bear, G.G., Yang, C., & Harris, A. (2016). *The Delaware Social-Emotional Competency Scale (DSECS-S): Evidence of validity and reliability*. Child Indicators Research. Doi: 10.1007/s12187-016-9427-6

<sup>2</sup> <https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/>

### ***Delaware Student Engagement Scale (DSES)***

The Delaware Student Engagement Scale (DSES)<sup>3</sup> was designed to assess students' perceptions of their own engagement in school, or the extent to which they are involved, committed, or invested in aspects of schooling. This survey typically includes three subscales: cognitive engagement (4 items), behavioral engagement (4 items), and emotional engagement (4 items). However, because the cognitive engagement subscale refers to homework and grades, neither of which were a component of UWE programming, the cognitive subscale was excluded for the purpose of the current survey (resulting in 8 items total). Behavioral engagement entails both academic learning and positive conduct. Students are engaged behaviorally when they are paying attention, following school rules, and not getting into trouble. Emotional engagement entails how students feel about their classrooms and school and includes attitudes toward school and liking or disliking of school.

Students responded to items on a 4-point Likert scale by indicating the degree to which they agreed with a given statement. Response choices ranged from “*disagree a lot*” (score of 1) to “*agree a lot*” (score of 4). A total engagement score is derived by summing scores across all items (in this case, eight items). All items were adapted from the original survey to say, “*my outdoor class*” rather than “*in class*” or “*at school*” (e.g., “*I follow the rules at school*” was changed to “*I follow the rules in my outdoor class*”).

### ***Wilderness Inquiry Survey of Experiences (WISE)***

The Wilderness Inquiry Survey of Experiences (WISE) was originally developed by staff at CAREI in collaboration with WI leaders to examine wilderness trip outcomes for youth who participated in WI's Floating Classroom experience (now Canoemobile). Wilderness Inquiry identified three skills/attributes that its Canoemobile program was designed to foster in youth:<sup>4</sup>

- **Persistence:** “*Sticking with something until done; overcoming challenges; being open to new, unfamiliar, or scary experiences.*”
- **Environmental stewardship:** “*Stewardship of natural resources; the care and management of the environment; responsibility for environmental quality shared by all; participants agree that stewardship is partly their responsibility and is a means to a sustainable future.*”
- **Future science/career interests:** “*Learning about the environment and about science and jobs in the outdoors such that this new information sparks an interest in course selection or career choices, stimulates thinking about science and what they are capable of doing in science and the outdoors.*”

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<sup>3</sup> Bear, G. G., Yang, C., Mantz, L., Pansipanodya, E., Hearn, S., & Boyer, D. (2016). *Technical Manual for the Delaware School Survey: Scales of School Climate; Bullying Victimization; Student Engagement; Positive, Punitive, and Social Emotional Learning Techniques; and Social and Emotional Competencies*. University of Delaware, Center for Disabilities Studies. Retrieved from <http://wh1.oet.udel.edu/pbs/wp-content/uploads/2011/12/Delaware-School-Survey-Technical-Manual-Fall-2016.pdf>

<sup>4</sup> Dupuis, D.N., Fields, J., & Diamond, K. (2017). *Wilderness Inquiry Experience Survey: Technical Manual*. Center for Applied Research and Educational Improvement, College of Education and Human Development, University of Minnesota.

Students respond to each item using a 4-point Likert scale. Each item is designed to be scored on a four-point scale where 1 = “*very untrue of me*,” 2 = “*somewhat untrue of me*,” 3 = “*somewhat true of me*,” and 4 = “*very true of me*”. The total score is computed by averaging all the scored items. Although this tool and skill definitions were designed to examine outcomes of short-term canoe trips with WI, it was determined by evaluators and WI leaders that the UWE program had goals that were very similar to Canoemobile and that these survey items would adequately measure outcomes of these skills following the six-week UWE summer school program. Because the WISE had previously only been piloted and tested with 5th-12th grade students, UWE staff were asked to only have students in the older age group (4th-8th graders) complete the WISE items on the survey.

### **Leadership Interviews**

In August 2021, the CAREI evaluators conducted hour-long interviews with two WI leaders (WI’s Associate Executive Director and WI’s Education Program Manager in charge of the UWE program) regarding training, goals and implementation of UWE programming, the perceived impact of AO, strengths and areas for improvement, and next steps for UWE programming. The complete list of interview questions/prompts is provided in Appendix E. The two interviewees verbally consented to participate in the interview and agreed to be recorded via Zoom to enable accurate note taking and transcription. Interview data were analyzed using a highly deductive, low inference approach; a priori themes (i.e., codes) were aligned to interview questions and data were managed using a framework matrix and analyzed via template analysis.

## Results

### End-of-Program Staff Survey

#### Demographics

All charter school and UWE staff were invited to complete an End-of-Program Staff Survey during the last week of summer programming to provide feedback about UWE program implementation and provide general estimates of student engagement levels and key outcomes. A total of 36 staff responded to the survey, most of whom were UWE staff (see Table 1). It is unclear the extent to which the low charter staff response rate was due to staff electing not to participate or due to not receiving the link from the charter supervisor. Future evaluation could be improved through more direct access to staff contact information from collaborating agencies. Most respondents were male and identified as White or Asian American. Respondents reported working across all age levels (with K-9th graders). As shown in Figure 1, many respondents ( $n = 13$ , 36%) were working in schools/educational settings for the first time during the summer of 2021, while the second highest percentage of respondents ( $n = 9$ , 25%) had worked in schools/educational settings for over 7 years. In total, 33 out of these 36 staff participants met the criteria of completing at least two of the weekly engagement surveys and the End-of-Program Survey and were emailed or texted a \$10 gift card.

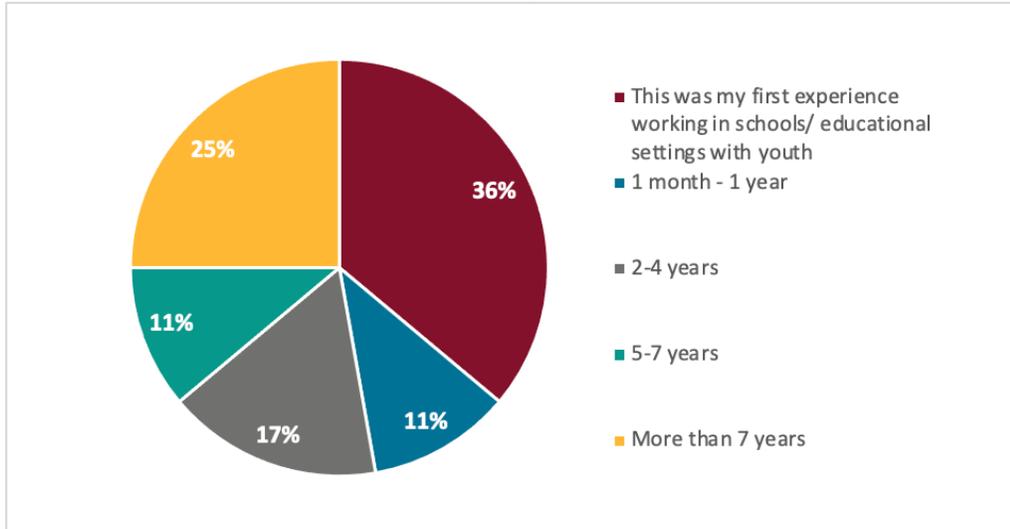
**Table 1.**

*Site and Demographic Information for End-of-Program Staff Survey Participants*

	UWE Staff	Charter Staff	All Respondents
<b>Total</b>	<b>24</b>	<b>12</b>	<b>36</b>
<b>Site</b>			
Hennepin	2	0	2
Hiawatha	2	0	2
KIPP	3	1	4
New Millennium	8	6	14
Prodeo	9	5	14
<b>Gender</b>			
Female	7	5	12
Male	15	5	20
Nonbinary	0	1	1
Prefer not to answer	2	1	3
<b>Race</b>			
American Indian	0	0	0
Asian American	3	7	10
Black/African American	1	1	2
Hispanic or Latino	1	0	1
White	17	4	21
Multiracial	0	0	0
Other	0	0	0
Prefer not to answer	2	0	2

**Figure 1.**

*Experience Levels of All Staff Survey Respondents*



***UWE Staff: Quantitative Responses***

UWE staff were asked to respond to 17 different statements on a 5-point Likert scale, with response options of “disagree,” “somewhat disagree,” “neither agree or disagree,” “somewhat agree,” or “agree.” These items asked staff to consider factors related to implementation of the UWE program, support provided by WI leaders, and student outcomes related to participation in UWE.

Figure 2 illustrates the percent of staff who indicated agreement (selected “somewhat agree” or “agree”) with statements related to implementation. Although a large majority of staff agreed that they liked the UWE program and their job, only 8% agreed that the training they received sufficiently trained them to implement UWE and 33% reported that UWE was easy to implement. Additionally, less than two-thirds of staff reported feeling confident in their ability to deliver UWE and reported that they were generally able to implement UWE programming with fidelity.

**Figure 2.**

*Implementation Staff Survey Questions: Percent of UWE Staff Indicating Agreement*

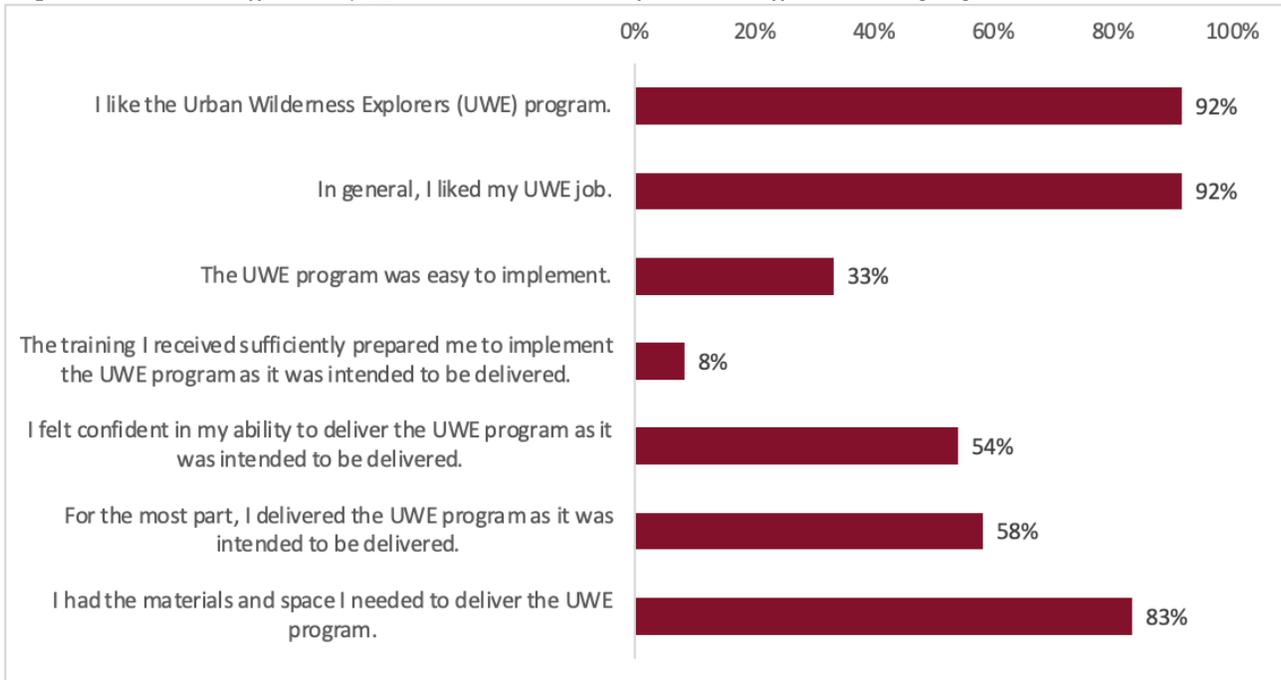
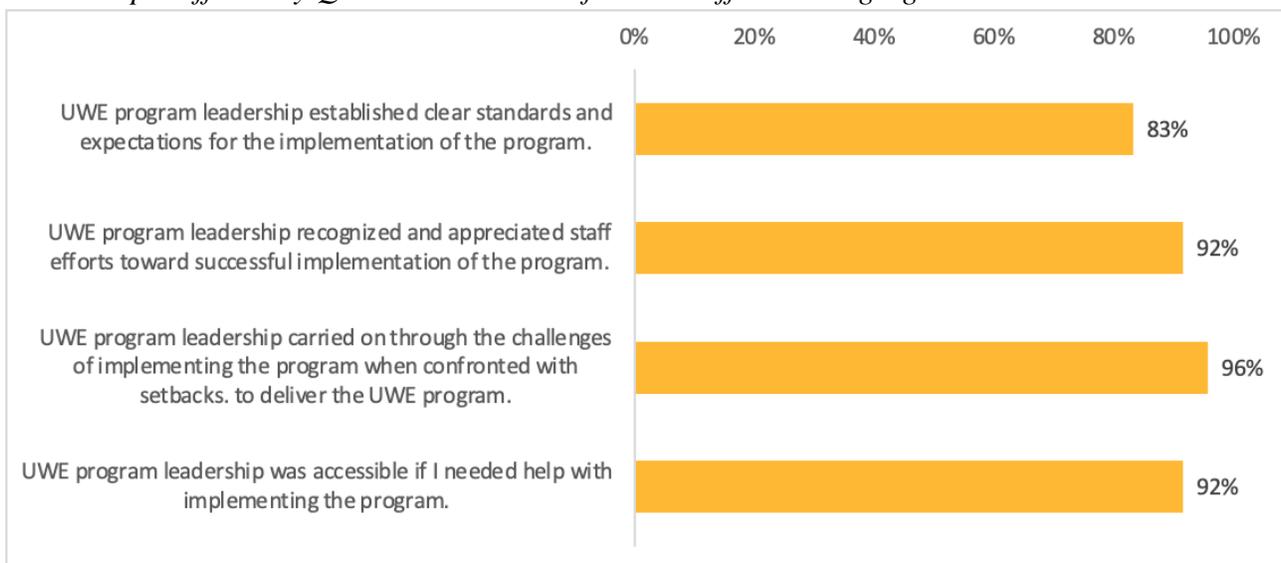


Figure 3 summarizes UWE staff agreement with statements about WI leaders. Staff generally provided high ratings about the extent to which WI leaders were supportive, though there was somewhat less agreement (83% of respondents) that WI leaders established clear standards and expectations for implementing the program.

**Figure 3.**

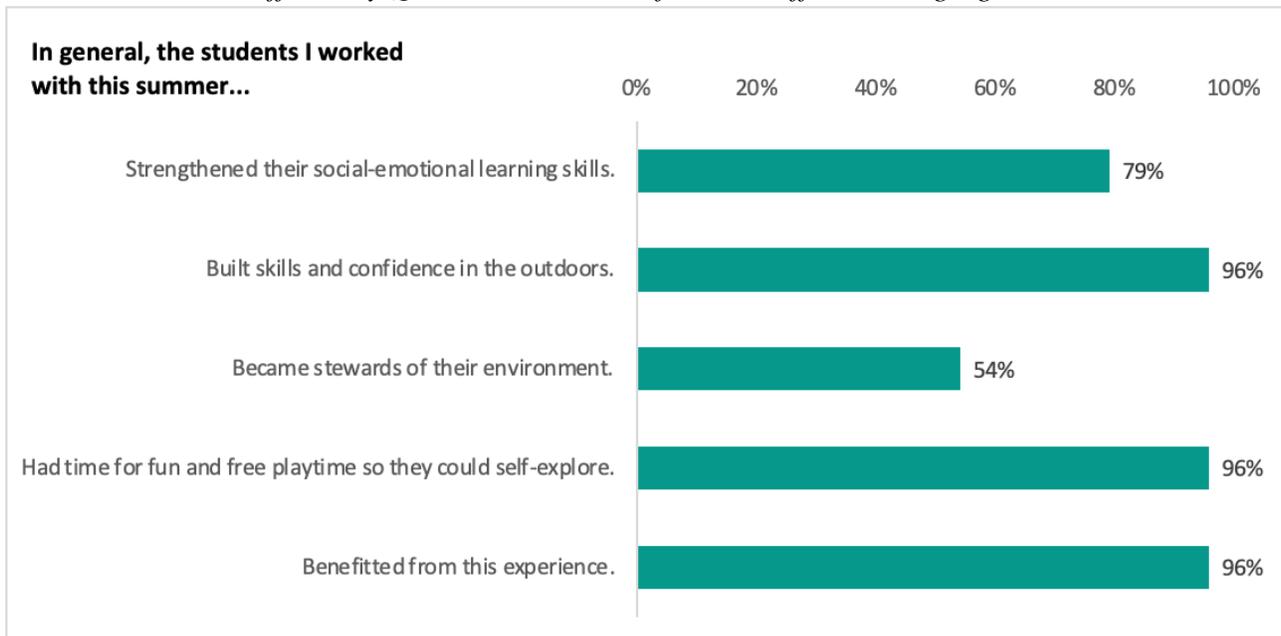
*Leadership Staff Survey Questions: Percent of UWE Staff Indicating Agreement*



UWE staff were asked to rate their agreement with statements about whether the students they worked with experienced the four key student outcome goals established by WI leadership, as well as whether they believed students generally benefited from engaging in UWE programming. Most staff agreed that students built skills and confidence in the outdoors, had time for fun/free playtime, and benefited from the experience (see Figure 4). A smaller percentage of staff reported that students strengthened their social-emotional skills and only a little over half of UWE respondents agreed that students became stewards of their environment.

**Figure 4.**

*Student Outcome Staff Survey Questions: Percent of UWE Staff Indicating Agreement*



### ***UWE Staff: Qualitative Responses***

**Strengths of UWE.** Staff noted several strengths regarding UWE programming this year. Themes from the qualitative survey item focused on strengths of programming included: 1) engaging, hands on lessons; 2) opportunities to explore nature; 3) supportive teaming and infrastructure; and 4) building positive relationships and improving social and emotional skills. Staff indicated that engaging, hands-on lessons helped students stay engaged and on-task and promoted students’ interest in nature and the outdoors. Staff also noted that “*a natural curiosity for nature was supplemented through the program.*” Working in teams, being flexible and adjusting as needed, and having access to materials needed were perceived as essential to delivering programming. Free time and informal interactions throughout programming provided opportunities for students to engage in positive relationships with staff and their peers, which was perceived as a factor that promoted students’ social and emotional skills.

**Areas for Improvement.** Majority of the qualitative feedback from staff on areas for future improvement focused on modifications to the curriculum that could: 1) make lessons more engaging

and active, or 2) better meet student developmental needs. Specifically, staff indicated that “*less lecture*” and “*more action*” would better engage students and prevent downtime when students were more likely to engage in disruptive behavior. Staff indicated that, at times, the curriculum in its current form could be dense. Staff felt that it would be helpful to break lessons into narrower age ranges (e.g., K-2, 3-5, 7-8) or have more differentiation based on age written into the lesson plans. Additionally, staff noted that it would be helpful for the curriculum adaptations to be more responsive to student cultural background and needs. For example, one staff member indicated, “*Many of my students did not know English (one student couldn’t even read in either of his languages) or just generally did not understand some of the things that we were doing because of their cultural backgrounds.*” An additional point of improvement identified by staff focused on improving partnerships with the schools. Staff felt it would be helpful to have at least one consistent and committed charter staff member in every pod who knows the students in that pod. Overall, staff felt a stronger, common understanding of what is needed would help, especially when issues come up so teams “*aren’t scrambling last minute to piece the day together.*”

**Stories from Staff.** Staff shared several stories of their and the students’ positive experiences together this year.

**“My absolute favorite memory and biggest success from this summer was building shelters at Hiawatha. We did that at the end of the second week and we had not yet had a day where the kids were actually interested in what we were learning or hadn’t had behavioral issues. When we started this activity, however, the students lit up and were the most engaged and cooperative that I had seen them. It was so cool to be able to see even the most apathetic and squirrely students let their guard down and really engage in the material.”**

**“Kids loved our program. One student told me this has been his best summer. Others mentioned using things we taught them at home. For example, they made smores for their family with ovens they took home.”**

**“I got the chance to enhance the curiosity of young science every day and it was rewarding.”**

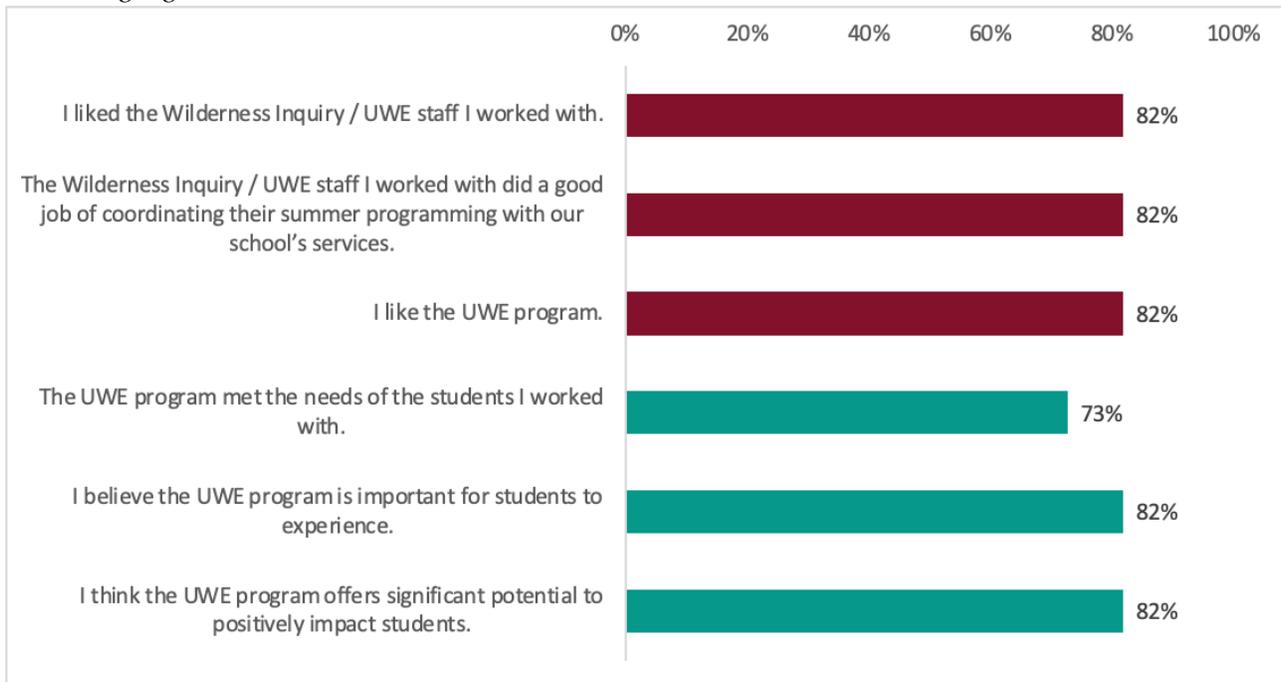
### ***Charter School Staff: Quantitative Responses***

Charter school staff were asked to respond to 6 different statements on a 5-point Likert scale, with response options of “*disagree,*” “*somewhat disagree,*” “*neither agree or disagree,*” “*somewhat agree,*” or “*agree.*” These items asked staff to consider factors related to implementation of the UWE program as well as some general statements about perceived benefits of UWE for students.

Figure 5 illustrates the percent of charter school staff who indicated agreement (selected “*somewhat agree*” or “*agree*”) with statements related to implementation and perceived benefits to students. Most charter school survey respondents reported agreement with each of these statements, indicating that they liked the UWE program and its staff, that UWE was well-coordinated in relation to their own school’s programming, and that the UWE program is important and offers potential to positively impact students. A slightly lower number of charter respondents (72%) agreed that UWE met the needs of their students.

**Figure 5.**

*Implementation and Student Outcome Staff Survey Questions: Percent of Charter School Staff Indicating Agreement*



**Charter Staff: Qualitative Responses**

**Strengths of UWE.** Qualitative feedback from charter school staff ranged from very positive to neutral. Positive feedback focused on communication, collaboration, and mutual respect between school and UWE staff. For example, one charter staff member noted, “*We communicated well together, and collaborated on ideas while discussing which ideas and plans would work best with which age groups.*” Another staff member indicated, “*The UWE staff made sure to communicate with me when they were using classroom materials or the classroom. They were respectful of my time and the classroom environment.*” Neutral feedback stemmed from limited interactions overall with UWE staff and thus little to no opportunities to form positive or negative perceptions.

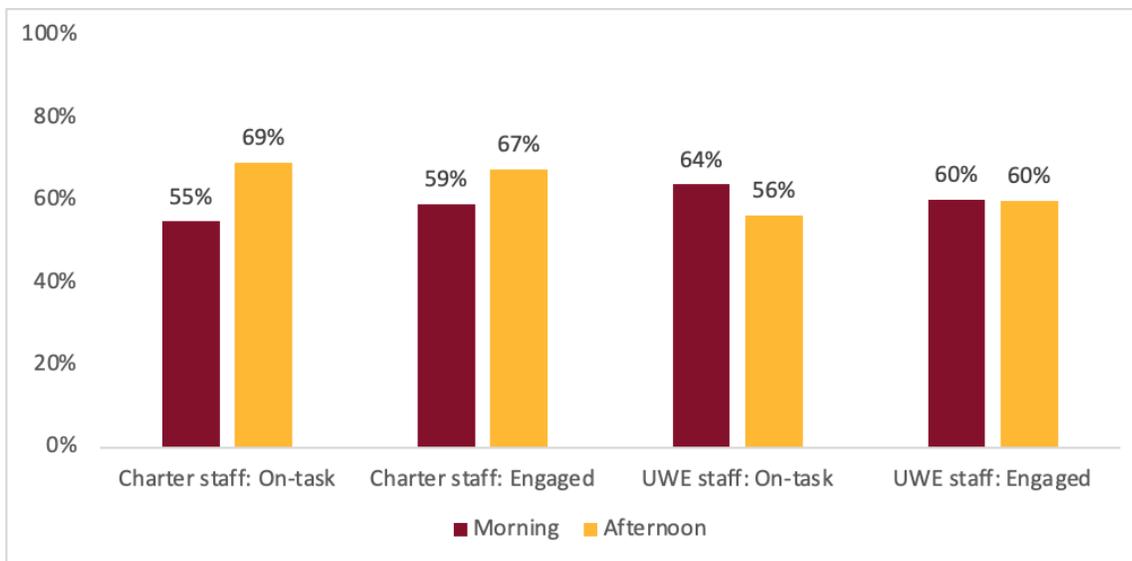
**Areas for Improvement.** Charter staff noted several areas for future improvement. Specifically, charter staff indicated that programming, and interactions between students and staff,

would be improved when staff could be trained on diversity, equity, inclusion, and biases. Moreover, charter staff felt it would be helpful for staff to receive more training in culturally responsive, positive behavior interventions and supports. Charter staff also felt the lessons could be better differentiated based on age groups.

**All Staff: Student Engagement Questions**

All End-of-Program Staff Survey respondents were also asked to reflect on the extent to which their students in both morning and afternoon sessions demonstrated engagement behaviors (“Thinking about a typical day this summer, approximately what percent of the time were your [morning / afternoon] session students [on-task / engaged in learning]?”). Charter school staff were asked to reflect on student engagement behaviors during their academic lessons, while UWE staff reflected on engagement during outdoor programming. Figure 6 demonstrates that overall, estimates of on-task behavior ranged from 55-69% of the time, and engagement in learning was estimated to range from 59-67% of the time. On average, charter staff reported that students were on task (62% of the time) and engaged in learning (63%) during academic lessons at a rate only slightly higher than UWE staff ratings of on-task (60%) and engaged behavior (60%) during outdoor programming. Charter staff also reported that engagement behaviors were higher during the afternoon, while UWE staff reported lower on-task behavior during the afternoons, with engaged behavior around 60% of the during both time periods.

**Figure 6.**  
Average Staff Estimates of Time Students Were On-task or Engaged on a Typical Day, by Staff Type and Lesson Time

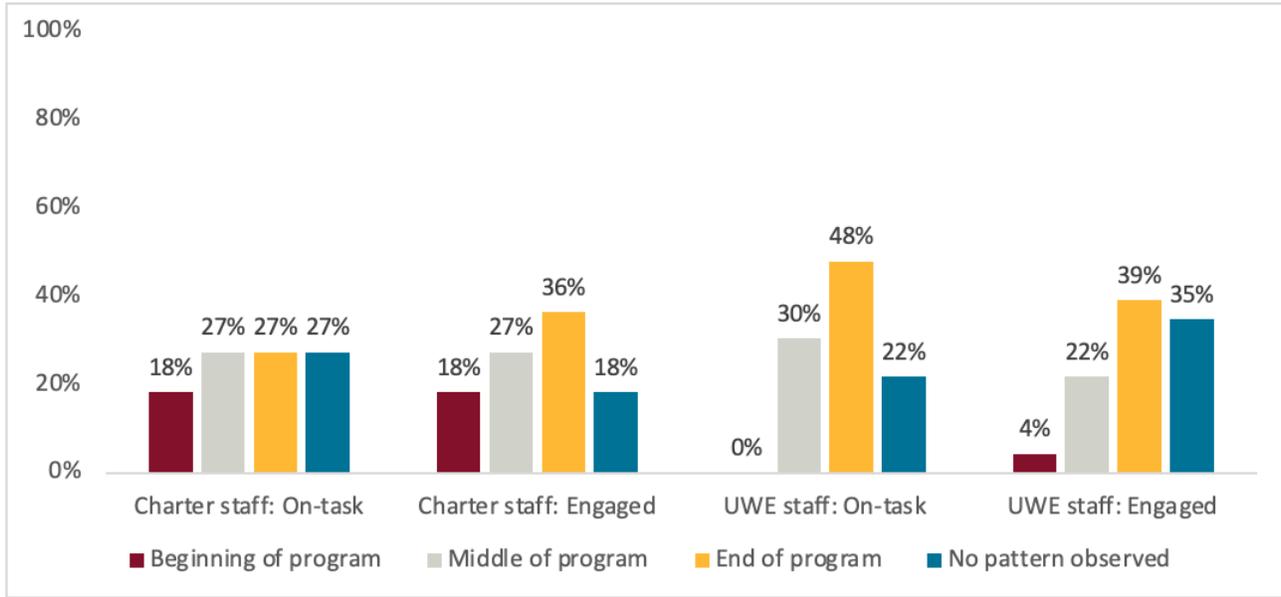


Lastly, all staff survey respondents were asked to reflect on whether students were most on-task and engaged during the beginning, middle, or end of the summer’s 6 weeks of programming (or whether no pattern was observed). As indicated in Figure 7, the largest proportion of both charter and UWE staff reported that students were most engaged in the final weeks of summer programming. Nearly half of UWE respondents also reported that students were most on-task during the end of the

program, while charter school staff expressed a range of opinions on when students were most on-task in their classes. These UWE staff ratings closely align with reports from UWE staff and leaders that the first few weeks included several implementation challenges (primarily related to staffing) that were reduced as the UWE program continued, likely resulting in higher student engagement in outdoor classroom activities towards the end of the program.

**Figure 7.**

*Staff Ratings of On-Task Behavior and Engagement in Learning Throughout Summer Programming*



**Key Takeaways from End-of-Program Staff Survey Results**

- A total of 36 staff (24 UWE staff, 12 charter staff) responded to a survey about UWE program implementation and outcomes. Response rates from charter staff were limited in part due to a lack of direct access to charter staff contact information.
- UWE staff generally provided highly positive ratings about implementation of UWE and supports offered by program leaders. However, staff also indicated that it was difficult to implement UWE and that they did not receive sufficient training to implement the program with fidelity. Less than two-thirds of staff reported feeling confident in their ability to deliver UWE and reported that they were generally able to implement UWE programming with fidelity.
- UWE staff reported high levels of agreement that students gained skills/confidence in the outdoors, had time for fun and free play, and generally benefited from the program. Fewer staff agreed that students gained environmental stewardship and social-emotional skills.
- Most charter school survey respondents reported that they liked UWE and its staff, that UWE was well-coordinated in relation to their own programming, and that the UWE program is important and offers potential to positively impact students.
- UWE and charter staff estimates of on-task behavior ranged from 55-69% of the time on a typical program day, and engagement in learning ranged from 59-67% of the time.

- On average, charter staff reported that students were on task (62% of the time) and engaged in learning (63%) during academic lessons at a rate only slightly higher than UWE staff ratings of on-task (60%) and engaged behavior (60%) during outdoor programming.
- Most charter and UWE staff reported that students were most engaged in learning during the final weeks of summer programming.
- Strengths of the UWE program:
  - UWE staff reported the strengths of UWE programming included: 1) engaging, hands on lessons; 2) opportunities to explore nature; 3) supportive teaming and infrastructure; and 4) students having opportunities to build positive relationships and improve social and emotional skills.
  - Charter school staff provided positive feedback about communication, collaboration, and mutual respect between school and UWE staff.
- Areas for improvement:
  - Most qualitative feedback from UWE staff on areas for future improvement focused on modifications to the curriculum that could: 1) make lessons more engaging and active, 2) better meet student developmental needs, or 3) be more responsive to student cultural background and needs.
  - UWE staff reported a need to improve partnerships with the schools. Staff felt it would be helpful to have at least one consistent and committed school teacher in every pod who knows the students in that pod.
  - Overall, UWE staff felt a stronger, common understanding of what is needed to run the program each day would be beneficial.
  - Charter staff indicated that UWE staff would benefit from training on diversity, equity, inclusion, and biases, as well as training on culturally responsive, positive behavior interventions and supports.
  - Charter staff felt the UWE lessons could be better differentiated based on age.

### **Weekly Student Engagement Survey**

UWE program staff and staff from each charter school were invited to complete a brief weekly online survey about student engagement each Wednesday throughout summer programming (except for the first week). Their responses reflected the degree to which they estimated that students were “on-task” (defined as “actively or passively participating in the assigned task or ongoing activity”) and “engaged in learning” (defined as “demonstrating attention, curiosity, interest, excitement, or passion in what they are learning or being taught”) during summer school programming on the most recent Wednesday. A total of 170 surveys were completed, though 26 were excluded from analyses because the staff member noted that they did not teach on that given Wednesday (144 survey responses total). Table 2 provides details of the type of staff member completing each survey and how many were completed each week and at each site (Hennepin and Hiawatha were combined as no charter school staff provided survey responses and UWE staff worked at Hennepin in the morning and Hiawatha in the afternoon each day). Most surveys were completed by staff from the two largest sites (New Millennium and Prodeo), and charter school staff from Hennepin, Hiawatha,

or KIPP did not complete any weekly surveys. As noted previously, the level of participation in staff surveys such as these was likely impacted by the extent to which charter site leaders consistently shared the weekly survey link with their staff.

**Table 2.**

*Summary of Weekly Student Engagement Surveys Completed by Staff*

Site(s)	Total Surveys Completed	UWE Staff	Charter Staff	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6
Hennepin/Hiawatha	27	27	0	5	6	5	5	6
KIPP	18	18	0	2	4	4	4	4
New Millennium	55	26	29	16	3	9	16	11
Prodeo	44	20	24	11	0	11	12	10
<b>Total</b>	<b>144</b>	<b>91</b>	<b>53</b>	<b>34</b>	<b>13</b>	<b>29</b>	<b>37</b>	<b>31</b>

***Overall Levels of On-task Behavior and Engagement in Learning***

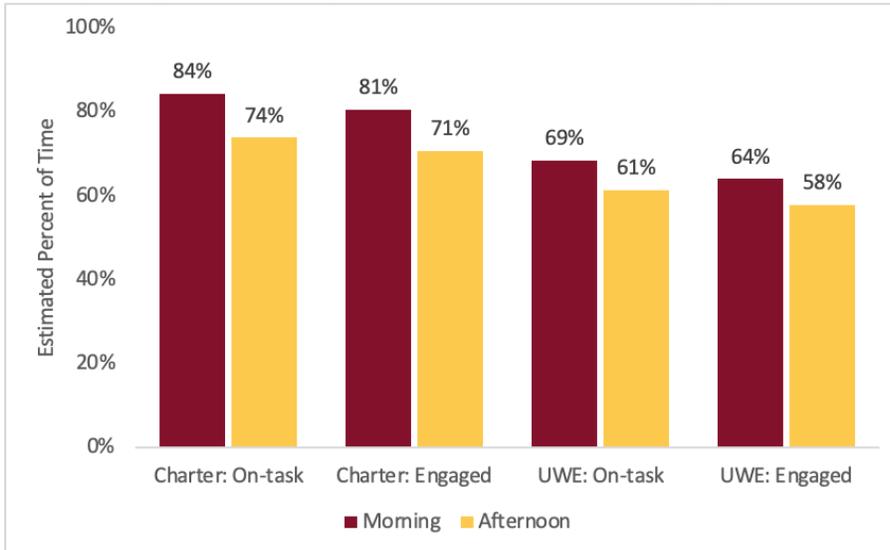
Figure 8 provides a summary of the weekly survey responses, depicting the average estimated percent of time students were on-task or engaged in learning. Charter school staff generally reported higher levels of student on-task and engaged behaviors during their classes than UWE staff, though both groups reported that on-task behavior levels were slightly higher than levels of engagement in learning. Both types of staff also reported that on-task and engaged behaviors occurred at higher percentages during morning sessions than during afternoon sessions.

Overall, charter school staff reported that students were on-task 74-84% of the time (79% on average) and engaged in learning 71-81% of the time (76% on average). UWE staff reported that in their classes students were on task 61-69% of the time (65% on average) and engaged in learning 58-64% of the time (61% on average).

Interestingly, there were several differences between these weekly data and the End-of-Program estimates staff provided. First, although weekly staff survey responses from charter and UWE staff consistently indicated that students were less on task and less engaged during afternoons than mornings, charter school respondents on the End-of-Program Staff Survey reported that students were more on-task and engaged during the afternoons (though UWE staff still reported lower levels of on-task behavior during their afternoon sessions). Additionally, charter staff estimates of on-task and engaged behaviors were significantly higher on these weekly rating forms (above 75% on average) than when rated at the end of the program (60-65% of the time on average). This seems to indicate that charter staff felt that students were more engaged on a day-to-day basis (on Wednesdays) but had the impression that overall engagement was slightly lower throughout the six weeks of programming.

**Figure 8.**

*Average Staff Estimates of Time Students On-task/Engaged in Learning, by Staff and Lesson Time*

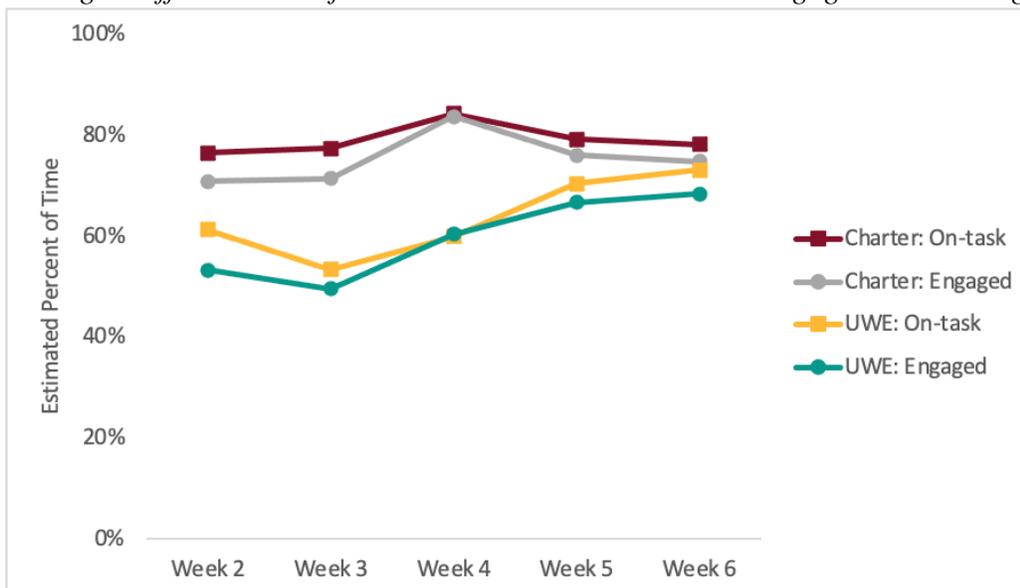


***Engagement Trends Over Time***

Wilderness Inquiry leaders were also interested in understanding how student engagement changed over time, both in lessons led by charter school staff and those led by UWE staff. As demonstrated in Figure 9, both groups indicated that on-task behavior and engagement in learning increased over time throughout summer programming, with UWE staff starting off with lower ratings in Week 2 and demonstrating a larger increase over time than charter staff ratings. Between Week 2 and Week 6, charter staff ratings indicated an average of 1.6% increase in on-task behavior and a 4.0% increase in engagement in learning, while UWE staff reported an 11.9% increase in on-task behavior and 15.1% increase in engagement in learning.

**Figure 9.**

*Average Staff Estimates of Time Students Were On-task or Engaged in Learning Over Time*



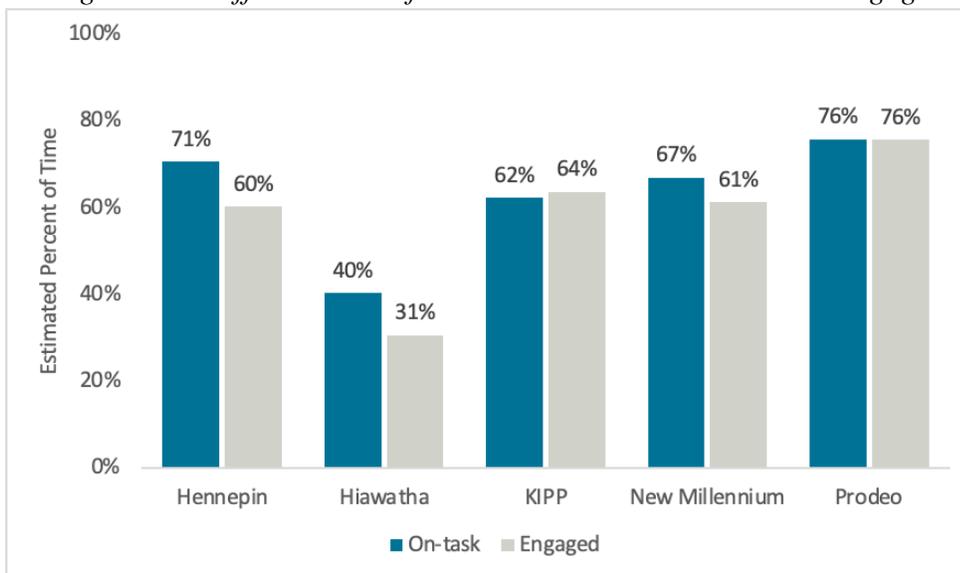
### ***Engagement Trends by Site***

Because implementation of the UWE program differed significantly by site, with some sites experiencing more challenges than others, it was also important to examine staff ratings of engagement behaviors by program site. Due to not having any responses from charter school staff from three of the five sites, average ratings of engagement behaviors were only examined for responses from UWE staff. Figure 10 demonstrates that sites did in fact show variability in staff ratings of on-task behavior and engagement in learning, with Hiawatha showing the lowest estimated levels of each behavior and Prodeco demonstrating the highest ratings for these behaviors.

Information provided by UWE leaders about each site’s implementation of UWE programming aligns with these findings. In leadership interview (see next section), UWE leaders explained that several sites had more experienced educators both acting as site leads and UWE educators, while one site was led by a staff member with no previous experience working in educational settings and other staff who were similarly new to the field. As one leader stated, *“Engagement was largely tied to the skillset and preparation the teams had.”*

**Figure 10.**

*Average UWE Staff Estimates of Time Students Were On-task or Engaged in Learning, by Site*



#### ***Key Takeaways from Weekly Student Engagement Survey Results***

- UWE and charter school staff were invited to complete a brief survey each Wednesday of summer programming (excluding the first week) in which they were asked to estimate the percent of time their students were “on-task” and “engaged in learning” that day.
- A total of 144 survey responses were analyzed, reflecting UWE staff experiences across all five sites as well as charter school staff experiences at New Millennium and Prodeco.
- On average, charter school staff reported that students were on-task (79% of the time) and engaged in learning (76% of the time) at higher levels during academic programming than UWE staff reported during outdoor programming (on task 65% of the time, engaged 61%

of the time). Both groups reported that on-task behavior levels were slightly higher than levels of engagement in learning.

- Both types of staff also reported that on-task and engaged behaviors occurred at higher percentages during morning sessions than during afternoon sessions.
- Both staff groups reported that on-task behavior and engagement in learning increased over time, with UWE staff starting off with lower ratings in Week 2 and demonstrating a larger increase over time than charter staff ratings.
- UWE staff reported variable experiences with student engagement behaviors by site, with Hiawatha UWE staff reporting the lowest estimated levels of engagement and Prodeo UWE staff reporting the highest levels. This result reportedly closely aligns to staff level of experience working in education prior to UWE, with sites led and staffed by more experienced educators observing higher engagement ratings than those with less experienced staff.

## UWE Student Survey

### *Demographics*

The student survey was completed by students during the first or second week of summer school programming (“*initial survey*”) and during students’ last week of programming (“*follow-up survey*”). A total of 509 students participated in the summer Urban Wilderness Explorers (UWE) program (Hennepin: 72; Hiawatha: 66; KIPP: 70; New Millennium: 171; Prodeo: 130), with 55% of all students participating in the initial survey and 54% participating in the follow-up survey. As indicated in Table 3, most students who completed the survey attended morning outdoor classes and identified as Asian American, Black/African America, or Hispanic/Latino. Additionally, Figure 11 indicates that student participants represented a wide range of grade levels, ranging from those entering first grade to those entering ninth grade.

**Table 3.**

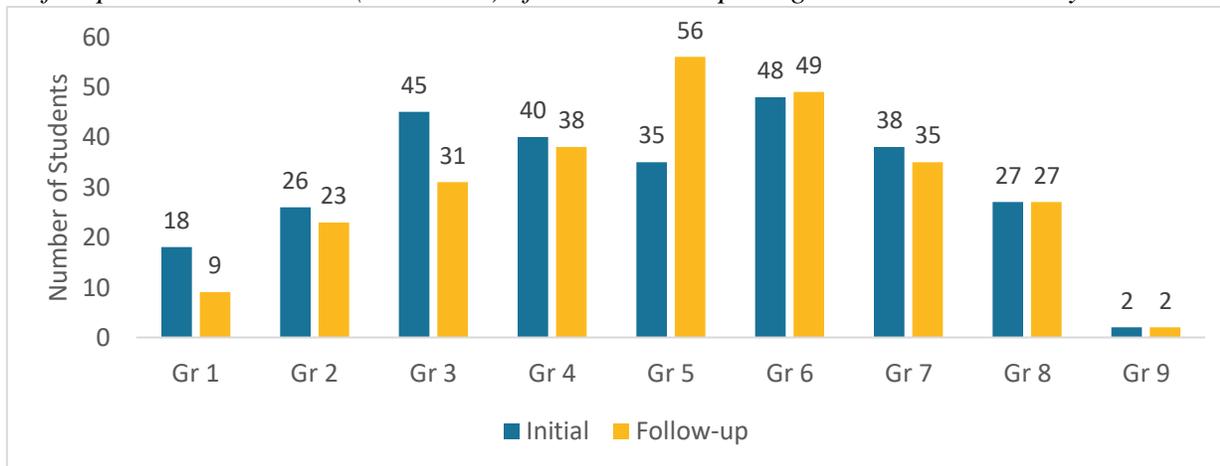
*Self-Reported Student Demographics from UWE Student Survey*

	Initial Survey		Follow-up Survey	
	<i>n</i>	%	<i>n</i>	%
<b>Total Respondents</b>	281	100%	273	100%
<b>Site</b>				
Hennepin	37	13.2%	61	22.3%
Hiawatha	33	11.7%	22	8.1%
KIPP	21	7.5%	46	16.8%
New Millennium	105	37.4%	95	34.8%
Prodeo	84	29.9%	49	17.9%
<b>Time</b>				
Morning outdoor class	186	66.2%	193	70.7%
Afternoon outdoor class	96	34.2%	57	20.9%

	Initial Survey		Follow-up Survey	
	<i>n</i>	%	<i>n</i>	%
<b>Gender</b>				
Female	126	44.8%	117	42.9%
Male	130	46.3%	122	44.7%
Nonbinary	8	2.8%	12	4.4%
Prefer not to answer	16	5.7%	10	3.7%
<b>Race</b>				
American Indian	4	1.4%	0	0.0%
Asian American	90	32.0%	82	30.0%
Black/African American	76	27.0%	97	35.5%
Hispanic or Latino	42	14.9%	29	10.6%
White	4	1.4%	6	2.2%
Multiracial	18	6.4%	16	5.9%
Other	13	4.6%	7	2.6%
Prefer not to answer	31	11.0%	26	9.5%

**Figure 11.**

*Self-Reported Grade Level (Next Year) of Students Completing UWE Student Survey*



***Limitations of the UWE Student Survey Data***

There were several factors that should be noted to contextualize the student survey data collected for this evaluation. First, as stated in the methods section above, the tools this survey drew from were originally designed and validated for students grades 3-12 (DSECS-S, DSES) and grades 5-12 (WISE). Visuals (smiley faces) were added to the survey and items were read aloud to students to also allow younger students to respond, and only students in grades 4 and above responded to the WISE items. Additional analyses were completed to examine student responses when grades 1-2 were excluded vs. included in the data, and results remained largely the same across each group, so the decision was made to include the full sample of grade 1-9 responses in the analyses summarized below (again, excluding kindergarteners due to demonstrable difficulty completing the survey). However, this should be taken into consideration when reviewing these data.

Additionally, due to the nature of evaluating summer programming run by two collaborating agencies (GMS and WI) and a desire to limit collection of identifying student information, data were only collected and analyzed at the group level without any student identifiers to tie initial and follow-up data together. As such, it is unclear the extent to which the students who took the initial survey also completed the follow-up survey (i.e., was it the same sample?). It is also unclear the extent to which students who took either survey had high attendance levels during summer programming, which may have impacted their engagement with and responses to UWE programming. With each of these factors in mind, these student survey data should be considered with caution, at a broad level, and as a first step towards investigating outcomes of this type of programming led by WI rather than as conclusive evidence of the impact of the UWE program.

***Delaware Social and Emotional Competency Scale (DSECS-S)***

Two types of analyses were completed to examine student responses to items from the DSECS-S, which reflected students’ perceptions of their own social and emotional competencies. First, total scores were computed by summing all item scores for students who completed all 12 DSECS-S items (Initial  $n = 226$ ; Follow-up  $n = 206$ ). Data in Table 4 indicate that on average, most students received relatively high overall social-emotional competency scores during both the initial and follow-up surveys (scores out of 48; Initial  $M=36.6$ ; Follow-up  $M=36.4$ ). Average social competencies scores were compared across site, time of day they attended the UWE program, and grade-level band. There were some small differences in mean scores across sites, with Hennepin and Prodeo students demonstrating slightly higher scores than those at other sites across both survey administrations, and Hiawatha students showing some of the lowest mean scores. Hennepin and KIPP were the only program sites in which mean social-emotional competency scores improved between the two survey administrations, with KIPP students showing the most promising increase of 2.9 points. Only small differences in mean scores were observed for the different times of day of the outdoor UWE classes and across grade-level bands, with several means decreasing between the initial and follow-up surveys among these subgroups.

**Table 4.**

*Average Student Social Competencies Scores (DSECS-S) on Initial and Follow-up Student Surveys*

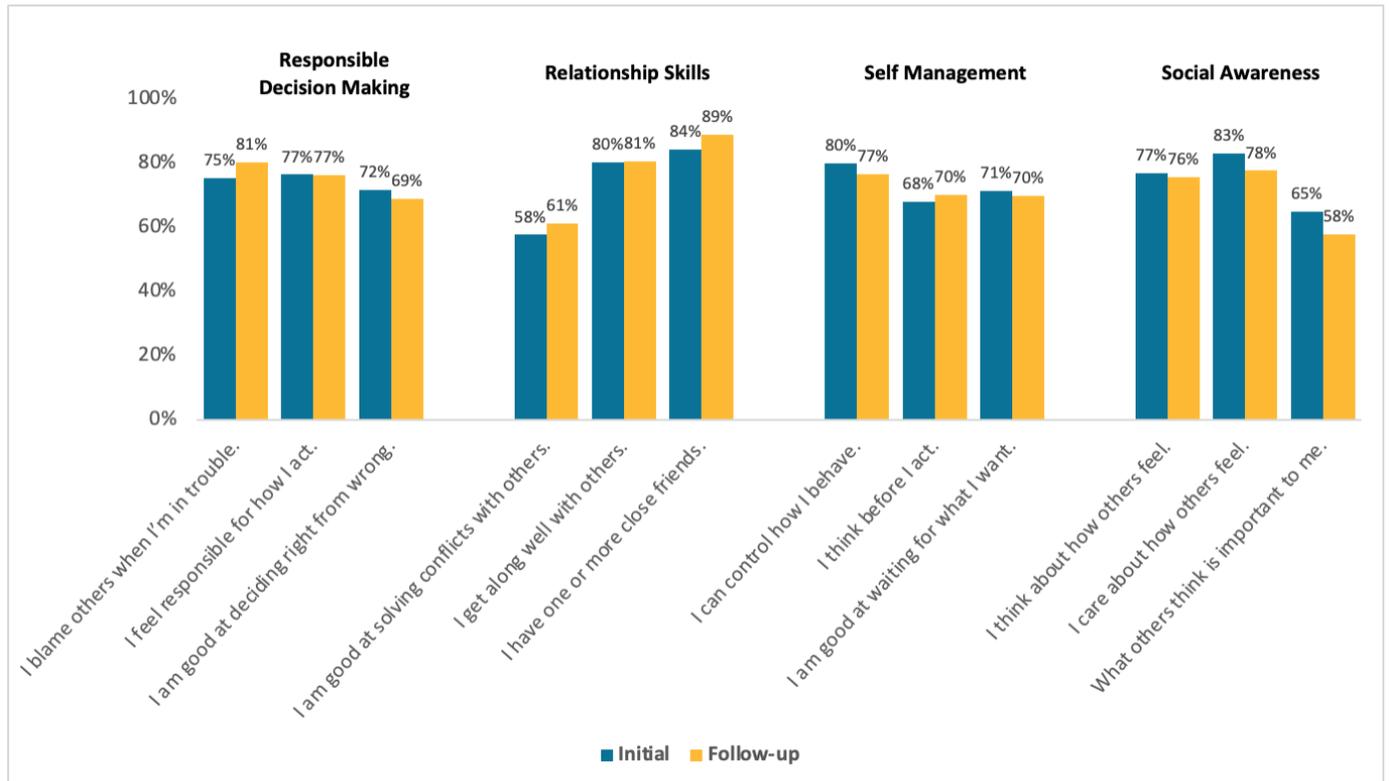
	Initial Survey			Follow-up Survey			Change
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	
<b>Total Respondents</b>	226	36.6	6.3	206	36.4	6.4	-0.2
<b>Site</b>							
Hennepin	25	36.5	8.1	38	38.3	6.7	1.8
Hiawatha	28	34.8	7.0	19	33.7	6.7	-1.1
KIPP	14	33.4	6.2	36	36.3	5.7	2.9
New Millennium	86	36.5	5.5	69	35.4	5.6	-1.1
Prodeo	72	38.0	5.9	44	37.6	7.4	-0.4
<b>Time of Outdoor Class</b>							
Morning	149	36.3	6.4	143	36.6	6.1	0.3
Afternoon	77	37.2	6.0	44	35.0	7.1	-2.2

Grade	Initial Survey			Follow-up Survey			Change
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	
Grades 1-3	70	38.3	5.9	46	37.0	7.9	-1.3
Grades 4-6	96	35.8	6.4	104	36.8	5.8	1.0
Grades 7-9	58	35.9	6.2	54	35.4	6.2	-0.5

Results from the DSECS-S questions on the UWE student survey were also analyzed by level of “agreement” with each item, by examining the combined percent of students who selected “somewhat like me” or “very much like me” in response to each prompt (except for “I blame others when I’m in trouble,” which was reverse coded). Results from this analysis in Figure 12 indicate that student responses to each of these items remained generally consistent across both survey administrations, though two items demonstrated a 5% positive change over time: “I blame others when I’m in trouble” and “I have one or more close friends.” The item that consistently received the lowest agreement was “I am good at solving conflicts with others,” which should be kept in mind for future programming when the goal is to increase social-emotional competencies since this is a skill that can be directly taught and practiced with students.

**Figure 12.**

*DSECS-S: Percent Agreement by Item Across Initial and Follow-up Survey Administrations*



### ***Delaware Student Engagement Scale (DSES)***

Two types of analyses were also completed to examine student responses to items from the DSES, which reflected students’ perceptions of their persistence, environmental stewardship, and future science/career interests. Total scores were computed by average all item scores for students who completed all 8 DSES items (Initial  $n = 239$ ; Follow-up  $n = 239$ ). Data in Table 5 indicate that on average, most students provided relatively high ratings of their engagement in outdoor classes during both survey iterations (scores out of 32; Initial  $M=25.6$ ; Follow-up  $M=24.6$ ). Average engagement scores were compared across site, time of day in UWE, and grade-level band. There were a few small differences in mean scores across sites, with Prodeo students consistently reporting the highest levels of engagement and students at Hiawatha reporting the lowest engagement levels. The overall mean engagement score and mean scores across nearly all subgroups decreased between the initial and follow-up surveys (except at the Hennepin site, which only saw an increase of a fraction of a percent).

**Table 5.**

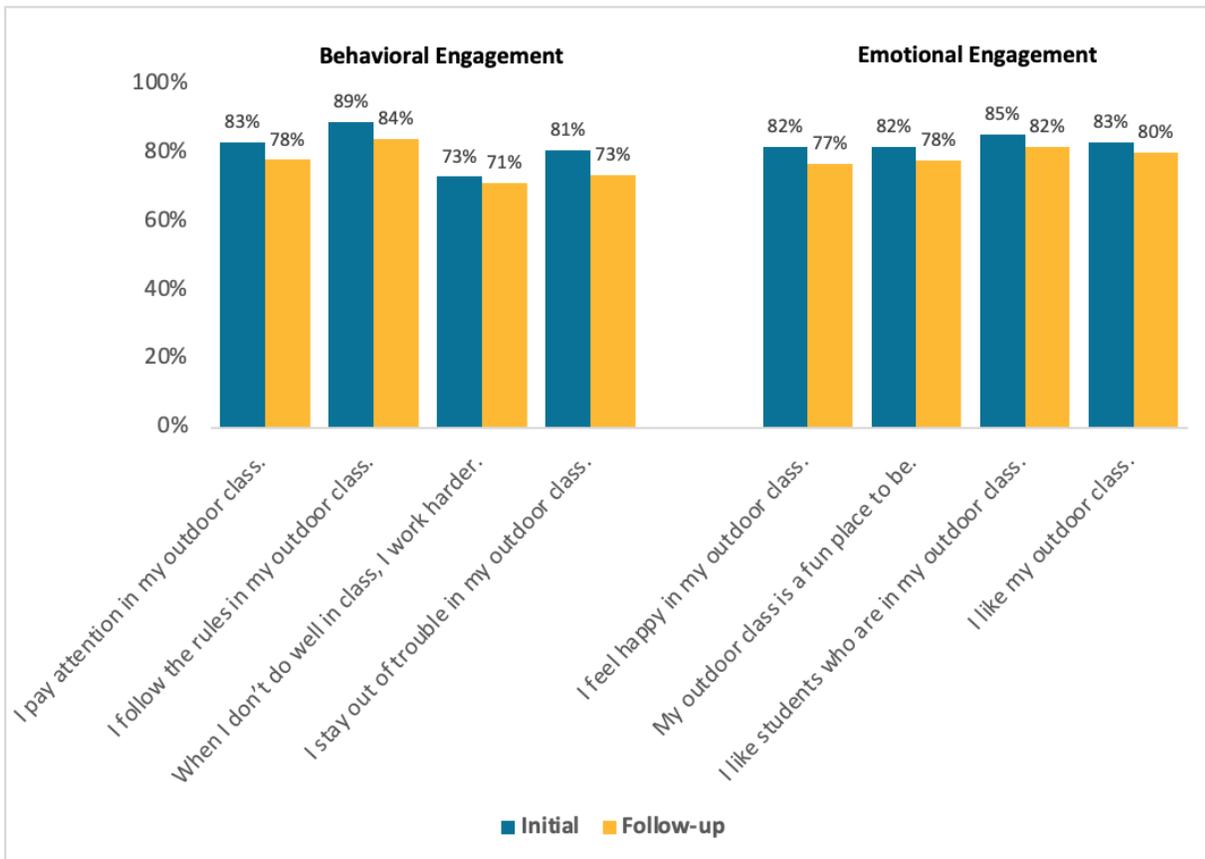
*Average Student Engagement Scores (DSES) on Initial and Follow-up Student Surveys*

	Initial Survey			Follow-up Survey			Change
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	
<b>Total Respondents</b>	239	25.6	4.8	239	24.6	4.9	-1.0
<b>Site</b>							
Hennepin	32	25.1	6.5	47	25.7	5.8	0.6
Hiawatha	27	22.5	5.5	22	20.5	6.2	-2.0
KIPP	18	26.0	2.8	37	24.9	3.9	-1.1
New Millennium	91	25.1	3.8	87	24.0	4.0	-1.1
Prodeo	71	27.5	4.3	46	26.5	4.4	-1.0
<b>Time of Outdoor Class</b>							
Morning	158	25.3	4.5	166	25.0	4.5	-0.3
Afternoon	81	26.2	5.3	52	23.0	6.1	-3.2
<b>Grade</b>							
Grades 1-3	69	27.2	5.1	53	26.3	5.6	-0.9
Grades 4-6	107	25.0	4.1	128	24.6	4.4	-0.4
Grades 7-9	61	24.6	5.0	56	23.6	4.8	-1.0

Results from the DSES were also analyzed by level of agreement with each item, by examining the combined percent of students who selected “agree” or “agree a lot” in response to each prompt. Results from this analysis in Figure 13 indicate that student agreement for each item consistently decreased between the two surveys, with decreases ranging from a drop of 2 to 7 percentage points.

**Figure 13.**

*DSES: Percent Agreement by Item Across Initial and Follow-up Survey Administrations*



***Wilderness Inquiry Survey of Experiences (WISE)***

The same two types of analyses were also completed for responses to the WISE survey items, which reflected students' perceptions of their own engagement in outdoor UWE programming. Total scores were computed by averaging all item scores for students who completed at least half (8) of the 16 WISE items (Initial  $n = 172$ ; Follow-up  $n = 196$ ). Students were prompted to complete the survey if they were in 4th grade or higher. A small number of students in grades 1-3 completed these survey items for the initial survey ( $n = 10$ ), but their data were excluded from the sample. Data in Table 6 indicate that students generally provided high ratings across both administrations of this survey (initial and follow-up means were both 2.9 out of 4). In general, only minor differences in mean response ratings were seen across sites, times of day, grade levels, and survey iterations.

**Table 6.***Average Student WISE Scores on Initial and Follow-up Student Surveys*

	Initial Survey			Follow-up Survey			Change
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	
<b>Total Respondents</b>	172	2.9	0.6	196	2.9	0.6	0.0
<b>Site</b>							
Hennepin	11	2.9	0.7	36	3.1	0.5	0.2
Hiawatha	31	2.9	0.8	20	2.6	0.6	-0.3
KIPP	21	3.0	0.6	42	3.1	0.6	0.1
New Millennium	87	2.9	0.5	85	2.8	0.5	-0.1
Prodeo	21	3.0	0.7	13	3.0	0.6	0.0
<b>Time of Outdoor Class</b>							
Morning	134	2.9	0.6	146	2.9	0.6	0.0
Afternoon	38	3.0	0.7	28	2.8	0.6	-0.2
<b>Grade</b>							
Grades 4-6	106	3.0	0.7	128	3.0	0.6	0.0
Grades 7-9	65	2.9	0.5	63	2.8	0.6	-0.1

WISE item responses were also analyzed by level of agreement by item (combined percent of students who selected “*somewhat true of me*” or “*very true of me*” in response to each statement). Figures 14-16 provide a summary of these analyses by domain. As indicated in Figure 14, most items on the Persistence subscale received high levels of agreement from student respondents, with little change seen over time. The exception is the item, “*I can be successful when I try something scary,*” which had a 5.1% increase in agreement between the initial and follow-up surveys.

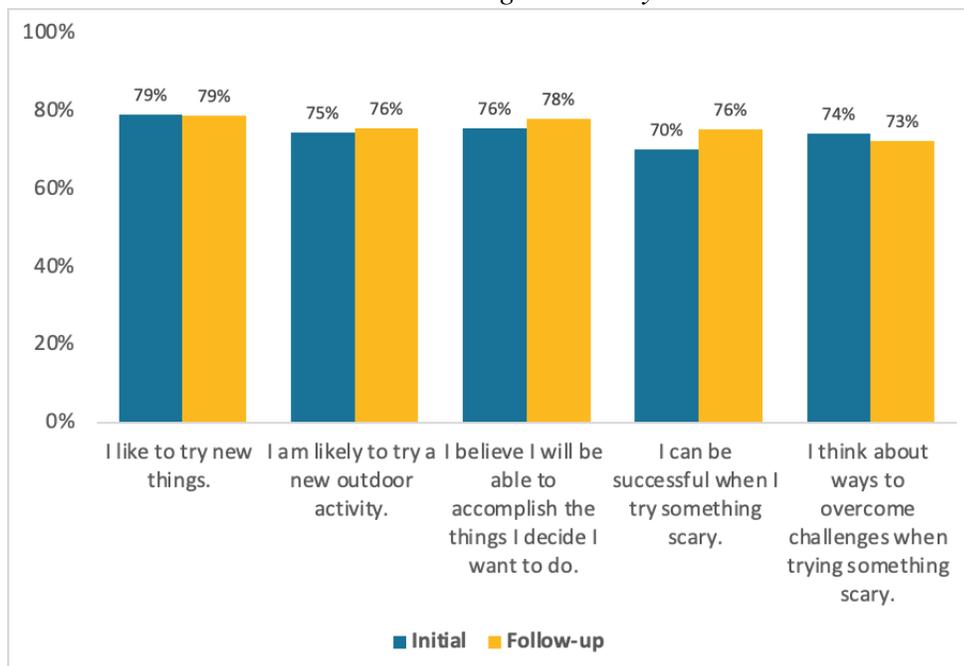
**Figure 14.***WISE Persistence Subscale: Percent Agreement by Item Across Administrations*

Figure 15 presents results from the Environmental Stewardship domain of the WISE. Although most items were rated highly across both survey iterations, students consistently provided somewhat lower ratings of agreement in response to “I’d be willing to tell a friend about how to protect the environment.” Additionally, students provided lower agreement ratings across all items on this scale when comparing the initial and follow-up survey outcomes.

**Figure 15.**

*WISE Environmental Stewardship Subscale: Percent Agreement by Item Across Administrations*

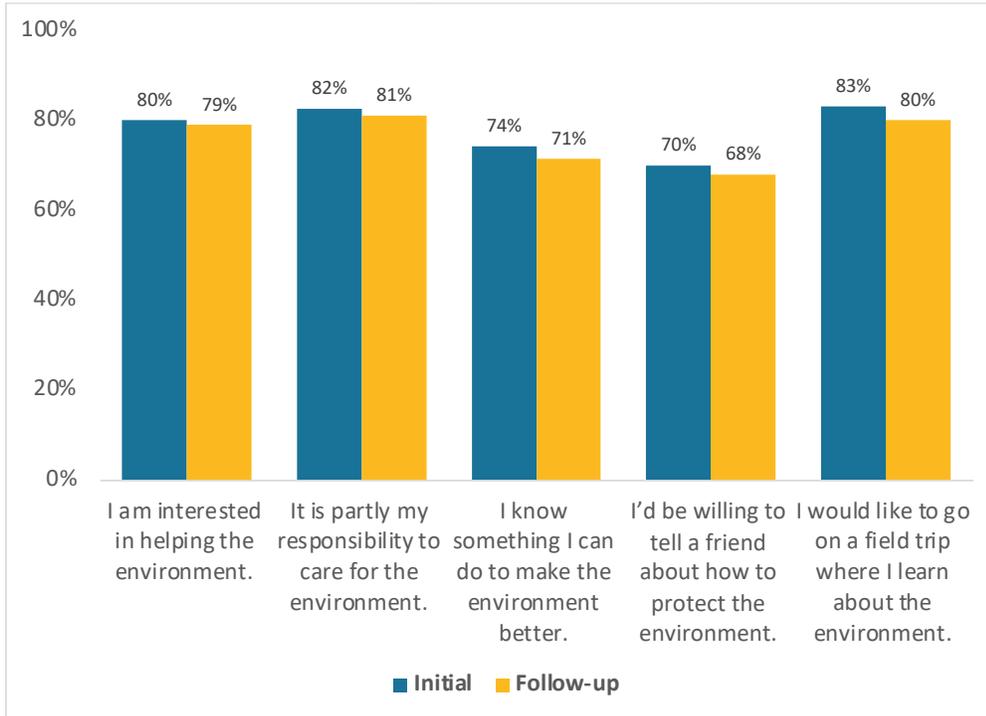
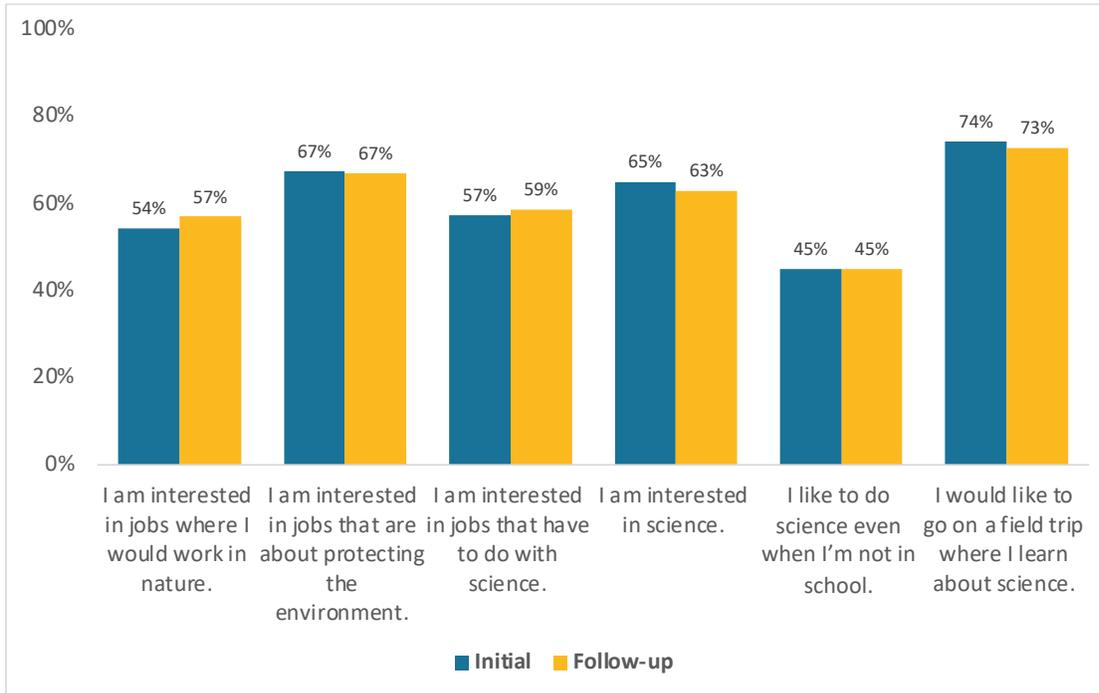


Figure 16 presents results from the Future Science/Career Interests domain of the WISE. There was much more variability in agreement levels across this domain’s items, with less than half of students indicating that “I like to do science, even when I’m not in school,” but almost three-quarter of students reporting that “I would like to go on a field trip where I learn about science.” Responses to these items were generally consistent across the two survey administrations, though there was a 2.6% increase in agreement with the statement “I am interested in jobs where I would work in nature” between the initial and follow-up surveys.

**Figure 16.**

*WISE Future Science/Career Interests Subscale: Percent Agreement by Item Across Administrations*

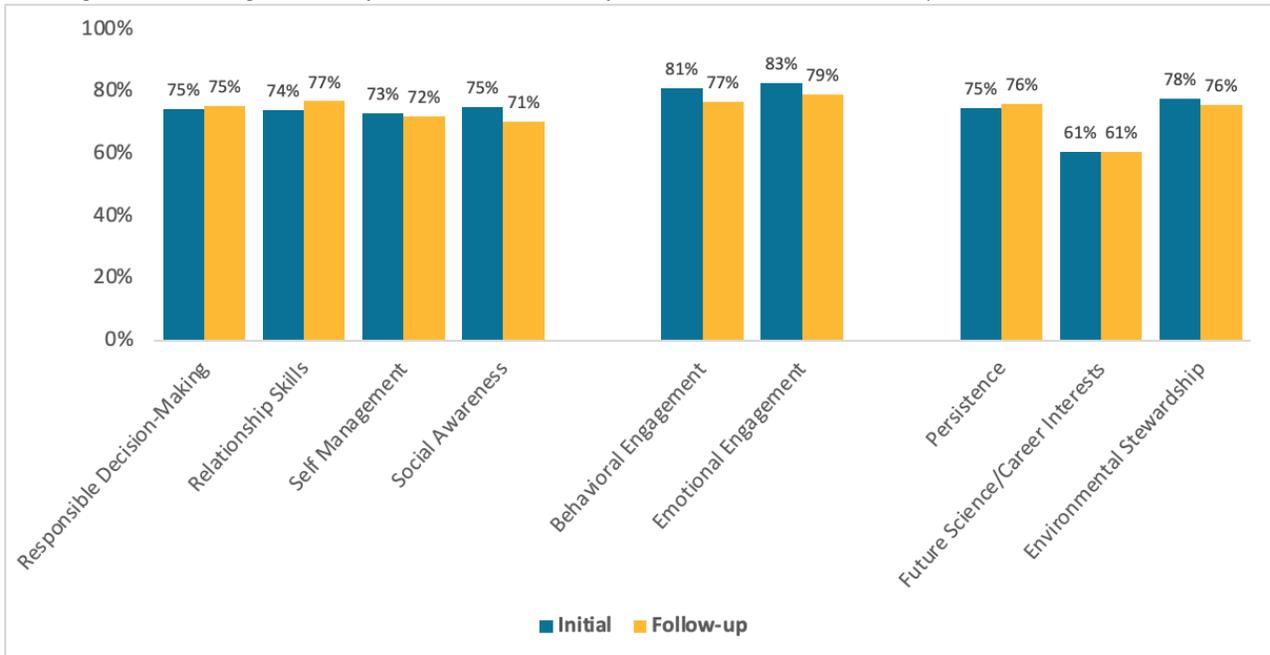


***UWE Student Survey Results by Domain***

One overall analysis was done to summarize findings across each domain represented on the UWE Student Survey. The percent of students who indicated agreement with each item on the survey was averaged across items in each domain for both the initial and follow-up survey responses. As Figure 17 indicates, average agreement levels for most domains measured in the UWE survey stayed largely the same or decreased across the two survey administrations (especially behavioral and emotional engagement). However, the social-emotional DSECS-S domain of Relationship Skills did see a relatively notable increase of 2.8% across the survey iterations. This may be connected to the fact that one item in this domain, “*I have one or more close friends*” saw a 5% increase between the initial and follow-up survey. This may indicate that students gained one or more friends as a result of participation in the UWE program.

**Figure 17.**

*Average Percent Agreement for each Domain of the UWE Student Survey*



### ***Key Takeaways from UWE Student Survey Results***

- Over half of the 509 students enrolled in the summer 2021 UWE program completed a student survey towards the beginning of summer programming and at the end of summer programming (55% responded to initial survey, 54% to follow-up survey).
- Student respondents were from all five summer school sites, represented a wide range of grade levels (Grades 1-9), and primarily identified as Asian American, Black/African America, or Hispanic/Latino.
- These student survey data should be considered in the context of several limitations, including that data were only collected and analyzed at the group level without any student identifiers, making it unclear the extent to which the students who took the initial survey also completed the follow-up survey. It is also unclear the extent to which students taking the follow-up survey had high attendance levels during summer programming, which may have impacted their engagement with and responses to UWE programming. As such, these data should be considered at a broad level and as a first step towards investigating outcomes of this type of programming led by WI rather than as conclusive evidence of the impact of the UWE program.
- Social and emotional competencies (DSECS-S):
  - On average, most students received relatively high overall social-emotional competency scores during the initial and follow-up surveys.
  - Students attending UWE at the Hennepin and Prodeo sites demonstrated slightly higher overall social-emotional competency scores across both survey administrations, while Hiawatha students had the lowest mean score.
  - Hennepin and KIPP were the only program sites in which mean social-emotional

competency scores improved between the two survey administrations, with KIPP students showing the most promising increase of 2.9 points.

- Student responses to each social-emotional competency survey item remained consistent across both survey administrations, though two items demonstrated a 5% positive change over time: *“I blame others when I’m in trouble”* and *“I have one or more close friends.”*
- The item that consistently received the lowest agreement was *“I am good at solving conflicts with others,”* which could inform future programming, given that this is a skill that can be directly taught and practiced with students.
- Student engagement (DSES):
  - Most students provided relatively high ratings of their engagement in outdoor classes during both survey iterations.
  - There were a few small differences in overall mean engagement scores across sites, with Prodeo students reporting the highest and Hiawatha students reporting the lowest engagement levels.
  - The overall mean engagement score and mean scores across nearly all subgroups decreased between the initial and follow-up surveys.
  - Student agreement levels with each item consistently decreased between the two surveys, with decreases ranging from a drop of 2 to 7 percentage points.
- Persistence, environmental stewardship, and future science/career interests (WISE):
  - Students (primarily 4th-8th graders) generally provided high ratings across both administrations of this survey.
  - Only minor differences in mean response ratings were seen across sites, times of day, grade levels, and survey iterations.
  - Most items on the Persistence subscale received high levels of agreement, with little change seen over time except for *“I can be successful when I try something scary”* which had a 5.1% increase in agreement between the survey administrations.
  - Most Environmental Stewardship items were also rated highly across both survey iterations, though students provided lower agreement ratings across all items on this scale when comparing the initial and follow-up survey outcomes.
  - There was variability on the Future Science/Career Interests item responses, with less than half of students indicating agreement that *“I like to do science, even when I’m not in school,”* but 80% or more students reporting that *“I would like to go on a field trip where I learn about science.”* Responses were consistent across survey administrations, though there was a 2.6% increase in agreement with the statement *“I am interested in jobs where I would work in nature.”*
- Average overall agreement levels for most domains measured by the UWE survey stayed largely the same or decreased slightly across the two survey administrations, though there was a relatively notable increase of 2.8% in the domain of Relationship Skills across survey iterations (possibly tied to students an increase in students rating that they had one or more friends after participating in the UWE program).

## Leadership Interviews

In August 2021, CAREI evaluators conducted hour-long interviews with two WI leadership staff (WI's Associate Executive Director and Education Program Manager in charge of UWE) regarding training, goals and implementation of UWE programming, the perceived impact of AO, strengths and areas for improvement, and next steps for UWE/WI programming. A summary of themes from this interview are described below, along with overall takeaways from the conversation.

### *Staff Training for UWE Program*

**Description of Training.** UWE staff engaged in 4-5 days of training (with Site Leads attending an additional day) focused on program content and special topics that were designed to support staff in responding to students' needs. Below are the themes with associated leader reflections regarding the specific strengths and potential areas for future improvement for the training approaches employed.

- ***Employing an active training approach.*** Overall, WI leadership explicitly employed an active training approach. The leadership team aimed to optimize the training time that used active learning approaches and minimize passive learning (e.g., “*sit and get*” training).
  - Active training strategies included: Role play/simulation; Action planning (i.e., focused on job tasks, routines, expectations, procedures, lesson plans); Hands-on activities; Team building opportunities; Pair-and-share, reflective activities. WI leadership also devised training materials and content to strategically address the specific steps and key actions (i.e., core components) of programming that needed to be delivered within each lesson for the program to be delivered as intended.
- ***Focusing on developing relationships with students.*** WI leaders noted that a significant component of training, that was “*driven home*” as a major priority of WI leadership and staff, was to give staff permission to make it their “*#1 goal*” to develop deep and genuine relationships with each student participating in the program. Leaders impressed upon staff during training that, above all else, developing relationships was the most important outcome of UWE programming. During the interview, one leader noted emphasizing to staff, “*If deep relationships were established, the rest of the program's goals would follow.*”
- ***Cultivating a safe and inclusive training environment.*** WI leaders also aimed to cultivate a training environment that fostered trust, safety, and inclusiveness.

“The tone and the intentional environment that we tried to create and that training, which was one of inclusiveness, safety, and trust, [was important] so that we would be able to have difficult conversations around the pandemic and racial violence, about the economic crisis many people are facing, about how all of this stuff has up-ended education, and [discussing] what they're about to walk into this summer. And giving them permission that the number one goal is that you created a relationship with the students; that's it. And if you can just do that, the rest will eventually come.”

**Strengths of training approach.** Leaders interviewed noted several key strengths that contributed to training success. Strengths aligned with the overall training approach outlined above.

- ***Employing an active training approach.*** Per leader report, the active training approach was perceived as important because some staff had little to no training in teaching, learning, or education as well as limited content knowledge related to nature and environmental studies. Staff also perceived active components of training as very effective; per leader reports, staff perceived active components as acceptable (i.e., they liked it) and appropriate (i.e., it fit their position and needs).
- ***Focus on developing relationships with students.*** Regarding building deep bonds and relationships with students, leaders indicated that, at site visits when asking about how things were going, reports from staff and leadership were largely focused on the strong bonds and relationships they had made with the student engaged in the UWE program. This brought WI leadership to tears, with experiences of positive emotion and passion for the effect of UWE on student belonging and social connection following an unprecedented and stressful period of isolation for most students.
- ***Cultivating a safe and inclusive training environment.*** Regarding the training environment, WI leaders noted that fostering a safe and inclusive training environment was essential to set the foundation for staff to engage in difficult conversations involving sensitive and salient topics (e.g., experiences and reactions related to the pandemic and racial violence).

**Areas for future improvement.** The most notable areas for improvement related to training approach were: 1) the difficulty of delivering passive training content (i.e., didactics); 2) the total amount of time allotted for training (i.e., they would ideally extend the 4-day training to two weeks); and 3) limited training on behavior management for UWE staff. Challenges and proposed improvements are described below:

***1. Alternatives to delivering passive (i.e., didactic) training content***

- ***Challenge.*** Leaders reported delivering passive training elements, such as lectures and traditional didactics were difficult. To improve training engagement and effectiveness, the aim identified was to increase time allocated to actively engage staff in working together as a team.
- ***Proposed Improvement.*** Leaders indicated that they would like to allocate more team working time specifically to UWE staff being onsite with school staff to action plan their space and the curriculum in a more comprehensive and detailed fashion. This could allow for better tailoring of content, expectations, resources, and procedures, then relying on guidelines that are written to be very generalizable.

***2. Increase total time for training of staff***

- ***Challenge.*** Overall, leaders indicated that the total amount of time allotted for training needed to be lengthened.
- ***Proposed Improvement.*** Lengthening training from four days to two weeks would allow for more active team working/action planning and include content that was not

previously included (see below regarding training in behavior management for staff). Alternatively, changing hiring criteria to require a minimum level of experience working with youth in educational settings could reduce a need for prolonged training on classroom management strategies.

### **3. *Develop training content focused on increasing staff efficacy and capability in managing student problem behavior***

- *Challenge.* Leaders noted that one of the “*big misses*” of 2021 training activities included lack of staff training in positive behavior management techniques and strategies. Overall, UWE staff lacked previous experience in student positive behavior management and supports and this was viewed as a “*missed opportunity*” for training. Leaders reported that staff had to “*stretch themselves,*” especially in the first few weeks when students were less engaged and acclimated to enjoying nature.
- *Proposed Improvement.* Leaders indicated that she would like to bring on a behavior specialist to specifically teach culturally responsive and ethical de-escalation and proactive behavior management strategies. Leaders indicated that it would be important in training on behavior management to emphasize the point that students who exhibit misbehavior should continue to be included in UWE activities and provided more positive reinforcement for expected behaviors than resorting to exclusionary discipline practices that could further negate feelings of belonging, trust, and acceptance.
- ***Other improvements discussed included***
  - *Centering some training activities on implicit and explicit biases,* how these can consciously and unconsciously impact decision-making and actions, and how these influences are amplified when staff feel pressured and in a continuous “*crisis mode.*” Finding ways to improve staff’s knowledge about and use of proactive, versus reactive, actions regarding approaches to behavior management could improve the program.
  - *Developing clearer agreements or contract with partnering schools* regarding the school’s responsibilities, services, and overall involvement in UWE activities, specifically about setting norms and supports (e.g., staff) to help with behavior management. Finding support for managing student behavior could improve staff work-related stress.

### ***Goals of UWE Program***

Leaders were asked to describe the process of developing goals for the UWE program. Overall, broad goals were first defined by Great Minnesota Schools. These included developing genuine relationships with kids, having fun, and healing in outdoor spaces (as this was seen as safer than indoors due to the ongoing COVID-19 pandemic). Program goals were further refined through an iterative process involving: working with WI’s education database and making modifications to existing UWE programming goals; self-study of the core components of nature-based learning programs that were shown effective through research in improving student/child development and

functioning; self-study of adult and student learning concepts in the research literature that would translate to active and applied learning; and integrating “*calls to action*” from educators and nature experts that supported students engage in nature-based learning with a focus on social-emotional learning as these components were missing from largely computer-based educational experiences.

This refinement process resulted in the following program goals:

- a. Strengthen social-emotional skills
- b. Build skills and confidence in the outdoors
- c. Support students to become stewards of their environment
- d. Have time for fun and free playtime so they could self-explore
- e. Demonstrate on-task behavior
- f. Engage in learning
- g. Benefit from UWE programming

Overall, leaders aimed to develop a program that would prepare students and build their self-efficacy to tackle environmental and social challenges, and help students use nature to reduce anxiety/stress resulting from environmental and social challenges.

### ***UWE Program Implementation***

**Key session components.** WI leadership was asked to describe the key components of UWE sessions that were expected to be implemented as intended (i.e., with fidelity) each day. Key components of UWE sessions included:

1. Welcome circle / routine in place to welcome and set intentions, pre-correct, set expectations (this was tailored by each site's preferences).
2. Ice breaker activity / team building experiences (could be SEL focused, lots of reflection and connection being made).
3. Instruction of some kind (what are we learning about; teach mini lesson; connect it back to our own experiences/lives).
4. Apply instruction (going out into nature to observe what they learned, identify things learned, etc.).
5. Brain break or energy booster (take a break – tailored based on the energy of the group).
6. Play a game that applies content (e.g., play predator or prey; game about food web to make learning concrete and provides repetition with content).
7. Journal wrap up, often related to learning, sometimes mindfulness based to connect with nature.
8. 30 minutes of free play in either a park with gym equipment or crafts to do (some kids continue to observe content taught).

In addition to the key session components described above, leaders described an ***overarching component***: Positive behavior supports and relationship building are integrated throughout the day (e.g., praise, being caring, prompting expected behavior). These activities support all students feeling seen and that who they are is valued and fosters a sense of being part of a supportive team/community.

**Perceptions of implementation quality.** Overall, leaders indicated that implementation quality was high across most sites. Leaders noted that site-based leadership was an influential facilitator of implementation quality. Specifically, leaders noted that site-based leadership took the curriculum “and really took it to the next level.” While barriers were encountered during implementation (see Areas for Future Improvement section), leaders indicated that they felt the accomplishments of the program outweighed and outnumbered the challenges experienced.

**Strengths of implementation.** Leaders interviewed noted several key strengths that contributed to implementation success.

- ***Focus on developing relationships with students.*** Per leader report, staff noted that they developed deep and caring relationship with students. This was evidenced by leader observations of praise, empathy statements, and positive physical attention (e.g., hugs, playing) between staff and students. Staff reported that students felt a strong sense of belonging, which was observed by actions such as all students being called on/known by name.
- ***Build skills and confidence in the outdoors.*** Leaders indicated that staff often told stories about students not having experience with nature because of where they lived, the lack of resources they had available, and their lack of overall awareness (e.g., knowledge of parks in area, green space, how nature can be enjoyable, how time can be spent experiencing nature). By the final week, leaders reported that students were regularly observed promoting and championing nature-loving behavior and developed a genuine curiosity for nature and their environment (e.g., protecting ants, sharing what they learned with family/friends outside of the UWE context). For instance, one leader noted, “*One of our staff was sharing that, at their school site, for the first two weeks, even having students touch the grass was too much. They didn’t want to sit on the grass, they didn’t want to even touch the grass with their hands; it just wasn’t comfortable for them. By the end of the program students were a lot more comfortable just being outside and they knew how to be outside; they knew what it was like to be outside; they knew how to prepare better for that.*” Overall, staff perceived positive student reports regarding their enjoyment and engagement in the UWE program and nature.

**“The reports that I got from staff was that students really developed a loving relationship with nature...A lot of these students don't have a lot of experience with nature and just based on where they live...the first two weeks were super challenging. All school sites said that [the students] would just complain” “Why?!”, “I don't want to be outside!”, “I don't want to be with these insects.” ...By the fifth week, [there was] just like a complete shift - a relationship with nature - and I was just like, ‘Holy cow!’ That’s exactly one of the outcomes that we wanted: they became stewards of their environment; they're sticking up for ants!”**

- **Site-based leadership’s initiative and staff engagement.** Both leaders noted that site-based leaders were key to high quality implementation. Further, leaders indicated that the quality of the staff implementing UWE programming were engaged and continuously positive, even when barriers arose. For example, a leader noted *“The three sites that had really strong leadership. I was just so impressed with how strong the team was, how collaborative they were, how much they jumped in to help each other problem solved. They were willing to be flexible and make changes so that they could make things work.”*

**“Staff that we hire at Wilderness Inquiry [are] really special... Everyday they just show up and they’re so positive and I’m like “Who wouldn’t want to be around you and learn from you?!” ... They just have that consistent positive energy that students just feed off of and want to be a part of...”**

**Unintended positive consequences.** In addition to the strengths outlined above, leaders noted several unintended positive consequences of UWE program implementation.

- **Staff interest in and pursuit of careers in the education sector.** One unintended positive consequence of UWE implementation was staff interest in and pursuit of education-related career paths. Leaders noted that many staff reported never previously considering a career in education, but after working in the UWE program, they had decided to apply for jobs in the education sector (e.g., teaching jobs, support staff positions). Specifically, leaders noted, *“Three of the staff said that they had never considered education before ever and this fall they’re going to either be enrolling in an education program to become a teacher or they’re going to apply at a school to work like in the special education program as an assistant.”*
- **Revitalization of traditionally underutilized community green spaces.** Another unintended positive consequence of UWE implementation was the attention use of the parks by UWE staff and students brought to underutilized green space in certain communities. In three places where a school playground or school green space was not available, UWE staff used local parks to engage in UWE activities. The use of traditionally underutilized public parks by UWE fostered more funding and better resources to be funneled toward keeping the green spaces (e.g., parks) clean and kept for daily use by UWE and the broader local community. Because part of the UWE program is to foster stewardship of the environment, parks and green spaces were often left cleaner when UWE staff and students left than they were when they arrived. This benefitted not only students but also the communities within which they resided. Two specific examples given by WI leaders are outlined in more detail below.

“[Several groups] had to go to a park because the school sites did not have green spaces appropriate for programming. All three parks [students visited] were severely underutilized, like the city has just kind of given up on the park. Because we were there, we were leaving [the park] cleaner than we found it. And, just because of the fact that the kids were there and the park was being used, [the city decided] to start diverting funds to the park to make it better, so that we could use it in the future...Just because of our presence being there, it provided a safer, cleaner environment for everybody involved.”

**Areas for future improvement.** The most notable areas for improvement related to implementation were: 1) Consistent and adequate staffing; 2) Recruiting a team of experts to co-develop UWE curriculum/programming and staff training experiences; 3) Time & securing resources; and 4) Clear and consistent scheduling. Challenges and proposed improvements are described below:

- **Consistent and adequate staffing.** Factors negatively affecting staffing were described as: the pandemic, burnout of teachers, and pay not commensurate with similar job positions (e.g., substitute teaching; UWE jobs less alluring to potential candidates). Partnerships with Americorps and schools could also be improved to facilitate staff recruitment and retention.
- **Recruiting a team of experts.** Leaders identified their bounds of content knowledge as a limitation to developing high-quality training experiences and tailored programming. Leaders indicated that they would like to hire experts in culturally responsive behavior management, curriculum development for students of different ages, and environmental studies/nature content to improve training and program activities.
- **Time & securing resources.** Leaders noted that resources were difficult to obtain because of the UWE budget and schools often set limits on what was allowed for activities such as free, unstructured play at the end of each day.
- **Clear and consistent scheduling.** Leaders indicated that they allowed schools to customize their schedules, which caused difficulties for the UWE program.

Overall, leaders articulated that their team has developed plans to improve on each of the challenges listed above. Regarding staffing, leaders noted that starting the hiring processes earlier could be one way to address some of the staffing issues that significantly disrupted the equilibrium of UWE programming in the first few weeks of implementation (though this may still have been problematic given the difficulty all industries were observing in hiring adequate staff during the summer of 2021). Further, knowing the number of students expected to attend UWE well before initiating the hiring process would help leaders better ensure appropriate capacity and make decisions about setting enrollment limits prior to the UWE program start if necessary.

### ***Perceived Impact of UWE Program***

Perceived impact was assessed using quantitative ratings on a Likert scale ranging from 1 = “not at all” to 5 = “a great deal.” Low ratings (i.e., ratings less than 4) prompted further discussion regarding potential barriers to high quality implementation. Table 7 shows means and standard

deviations for the ratings of each program goal developed prior to implementation. It is worth noting that leaders showed high agreement in their ratings of perceived impact across program goals. Overall, the program was perceived to be most effective at: 1) building high quality relationships between students and staff; 2) fostering a connection with nature; and 3) growing a relationship with nature. Low ratings from at least one leader interviewed were provided for “*having time for fun and free playtime so they could self-explore,*” “*demonstrating on-task behavior,*” and “*engaging in learning.*”

**“I went to all the school sites on the very last day, and all the stories I heard were about relationships [formed between staff and students], and it was like, ‘See, you guys. Look back. That was what I told you: if you remember one thing, just develop these relationships. That will make all the difference for these kids.’”**

**Table 7.**  
*Ratings of Perceived Impact Across UWE Program Goals*

Goal	Mean	SD
Strengthen social-emotional skills	4.0	0.0
Build skills and confidence in the outdoors	5.0	0.0
Support students to become stewards of their environment	4.0	1.0
Have time for fun and free playtime so they could self-explore	3.0	0.5
Demonstrate on-task behavior	3.0	0.0
Engage in learning	3.5	0.5
Benefit from UWE programming	5.0	0.0

Regarding the goal focused on having time for fun and free play to self-explore, leaders noted that providing more hands-on activities/resources for students to use during the free/unstructured playtime at the end of the day. The ability to do this was largely constrained by the budget and what the partnering schools would allow. Leaders noted that student demonstration of on task behavior and engagement in learning was a challenge for staff in the beginning but improved over time. Leaders indicated that during weeks 3-5, staff started to see students “*turn around*” in their feelings toward nature and that by the end of the program, students really were stewards of their environment, often speaking out to protect the smallest of creatures such as ants. Leaders noted that overall, students developed greater empathy for creatures in nature, their environment, and the staff with whom they worked.

***Next Steps for UWE Program***

- Leaders planned to complete a broad debrief with program staff and leadership. Specifically, this debrief would include discussion about where everyone stands/feels about their current partnerships and approaches.
- Leaders also indicated that they would like to explore alternative models for the UWE program. Leaders indicated a couple of different models to be explored.
  - Specifically, ideas around adapting the UWE program format included keeping the current summer-long format but be more strategic about the sites selected

specifically for the UWE program based on readiness factors (e.g., select sites with pre-existing conditions that are most optimal for nature engagement, and allocate sites that may not have capacity and resources available to engage students in nature to projects that focus on building that capacity first via a separate “re-greening” project set to start soon). This would allow communities to engage in projects that would best meet their current needs and allow students/staff the resources necessary to achieve UWE program goals.

- An alternative approach was to return to a weeklong model, with which WI has shown success previously and would essentially “take the best parts of this programming and integrate it into our successful models.”
- Leaders also indicated that they would like to make substantial structural and content changes to keep the program “fresh” for students who would like to engage in UWE multiple years in a row and ensure that content is developmentally appropriate for the age range of students attending the program.

### ***Key Takeaways from Leadership Interviews***

- Overall, leadership interviews yielded specific information about implementation barriers and facilitators (i.e., the presence of factors that promote or impede the implementation of, or adherence to, the program). An overview of key implementation barriers and facilitators are listed below. These factors can be used to inform future UWE implementation efforts by leveraging key facilitators and deploying strategies targeting salient barriers to optimize the likelihood that implementation will yield intended program effects on youth outcomes of interest.
- Based on leader perceptions, the UWE program goals were mostly met. Implementation adherence, and subsequently program outcomes, were particularly strong in relation to core components focused on building positive relationships with students and supporting students to become stewards of their environment.
- The training approach was effective and facilitative of program implementation due to the explicit use of active training strategies. Training could be improved by allocating more time for training and integrating special topics focused on cultural responsiveness/humility and positive behavior interventions and supports. Alternatively, changing hiring criteria to require a minimum level of experience working with youth in educational settings could reduce a need for prolonged training on classroom management strategies.
- Staffing approaches and partnerships with external agencies could be strengthened to enhance stability at the outset of programming, as turnover appeared to act as an implementation barrier that impacted program equilibrium.
- Site based leadership arose as a critical component and key facilitator of high-quality program implementation. Providing times for site-based leaders to communicate with each other, receive support from upper-level leaders when needed, and collaborate with site-based staff to adapt as needed were crucial to quickly resolving problems and continuing to provide quality experiences for students.

- UWE programming appeared to not only have a direct impact on the students that attended but a potential ripple effect on the communities within which they were situated. Specifically, lessons taught diffused outside of the program and into family discussions and interactions. Additionally, UWE staff and student utilization of local green spaces drew attention to underutilized and neglected community resources and resulted in better kept and safer shared green space, where the larger community could also explore and benefit from nature.

## Findings and Recommendations

The following section provides a summary of findings related to each of the project's evaluation questions, along with overall recommendations for Wilderness Inquiry (WI) as it determines next steps for implementing Urban Wilderness Explorers (UWE) or similar programming in the future.

### **Question 1: To what extent do youth who participate in UWE demonstrate change in their social-emotional skills?**

#### ***End-of-Program Staff Survey results indicate that:***

- 79% of UWE staff agreed that students “*strengthened their social-emotional learning skills.*”
- Staff reported that free time and informal interactions throughout programming provided opportunities for students to engage in positive relationships with staff and their peers, which was perceived as a factor that promoted students' social and emotional skills.

#### ***UWE Student Survey results indicate that:***

- On average, most students received relatively high overall social-emotional competency scores during the initial and follow-up student surveys.
- There were two program sites in which mean social-emotional competency scores improved between the two survey administrations (one improved by 1.8 points while the other improved by 2.9 points; total scores were out of 48).
- Student responses to most social-emotional competency items remained consistent across both survey administrations, though two items demonstrated a relatively notable positive change between survey administrations: “*I blame others when I'm in trouble*” (5% more students disagreed) and “*I have one or more close friends*” (5% more students agreed).
- The item that consistently received the lowest agreement was “*I am good at solving conflicts with others,*” which only improved slightly across the two survey administrations (by 3%) but could inform future programming that targets social-emotional skills, given that this is a skill that can be directly taught and practiced with students.

#### ***Leadership interviews indicate that:***

- Leaders stated that at site visits when asking about how things were going, reports from staff and leadership were largely focused on the strong bonds and relationships they had made with the student engaged in the UWE program. Leaders reported feeling strong positive emotion and passion for the effect of UWE on student belonging and social connection following an unprecedented and stressful period of isolation for most students.
- Both interviewed leaders provided a rating of 4 out of 5 (1 = “*not at all*” to 5 = “*a great deal*”) when asked to rate their perceived impact of the UWE program on students strengthening their social-emotional skills.
- Leaders emphasized that one of the main outcomes the program had been effective at achieving was building high-quality relationships between students and staff.

**Question 2: To what extent do youth who participate in UWE demonstrate on-task behavior and engagement in learning (during UWE programming; during academic programming)?**

***End-of-Program Staff Survey results indicate that:***

- UWE staff reported that the engaging, hands-on lessons in the UWE curriculum helped students stay on-task and promoted students' interest in nature and the outdoors.
- Staff indicated that, at times, the curriculum in its current form could be dense, and that “less lecture” and “more action” would better engage students and prevent downtime when students were more likely to engage in disruptive behavior.

***Weekly Student Engagement Survey results indicate that:***

- Charter staff reported higher levels of on-task and engaged behaviors during their classes than UWE staff. On average, charter school staff reported that students were on-task 74-84% of the time and engaged in learning 71-81% of the time. UWE staff reported that students were generally on task 61-69% of the time and engaged in learning 58-64% of the time.
- Both staff groups reported that on-task behavior levels were slightly higher than levels of engagement in learning and that on-task and engaged behaviors occurred at higher percentages during morning sessions than during afternoon sessions.
- Both staff groups indicated that on-task behavior and engagement in learning increased over time throughout summer programming, with UWE staff starting off with lower ratings in Week 2 and demonstrating a larger increase over time than charter staff ratings. Between Week 2 and Week 6, charter staff ratings indicated an average of 1.6% increase in on-task behavior and a 4.0% increase in engagement in learning, while UWE staff reported an 11.9% increase in on-task behavior and 15.1% increase in engagement in learning.
- UWE staff reported variable experiences with student engagement behaviors by site, with one site reporting that students demonstrated engagement behaviors 31-40% of the time and another reporting engagement behaviors 76% of the time on average. This result closely aligns to staff level of experience working in education prior to UWE, with sites led and staffed by more experienced educators observing higher engagement ratings than those with less experienced staff.

***UWE Student Survey results indicate that:***

- Most students provided relatively high ratings of their engagement in outdoor classes during both survey iterations (between 71%-89% of students agreed with each student engagement statement).
- However, the overall mean engagement score and mean scores across nearly all subgroups (each site, AM vs. PM classes, by grade level) decreased between the initial and follow-up surveys.
- Student agreement for each item related to student engagement consistently decreased between the two surveys, with decreases ranging from a drop of 2 to 7 percentage points.

***Leadership interviews indicate that:***

- Leaders provided an average rating of 3.5 out of 5 (1 = “not at all” to 5 = “a great deal”) when asked to rate their perceived impact of the UWE program on students being engaged in learning. They reported that student demonstration of on task behavior and engagement in learning was a challenge for staff in the beginning but improved over time.

**Question 3: To what extent do youth who participate in UWE demonstrate change in the areas of persistence, environmental stewardship, and future science/career interests?**

***End-of-Program Staff Survey results indicate that:***

- Most staff (96%) agreed that students “built skills and confidence in the outdoors” through engagement in the UWE program
- Only 54% of UWE staff agreed that students “became stewards of their environment.”
- UWE staff noted that “a natural curiosity for nature was supplemented through the program.”

***UWE Student Survey results indicate that:***

- Students generally provided high ratings on Persistence, Environmental Stewardship, and Future Science/Career Interest items across both administrations of the student survey. Mean scores were 2.9 out of 4 overall for both survey iterations (1 = “very untrue of me” and 4 = “very true of me”).
- When comparing results between survey administrations, only minor differences in mean response ratings were seen across sites, times of day, grade levels, and survey iterations.
- Most items on the Persistence subscale received high levels of agreement (70-79% of students agreed with each statement), with little change seen over time except for “I can be successful when I try something scary” which had a 5.1% increase in agreement between the survey administrations.
- Most Environmental Stewardship items were also rated highly across both survey iterations (68-83% of students agreed with each statement), though students provided somewhat lower agreement ratings across all items on this scale when comparing the initial and follow-up survey outcomes.
- There was variability on the Future Science/Career Interests item responses, with less than half of students indicating agreement that “I like to do science, even when I’m not in school,” but 80% or more students reporting that “I would like to go on a field trip where I learn about science.” Responses were consistent across survey administrations, though there was a 2.6% increase in agreement with the statement “I am interested in jobs where I would work in nature.”

***Leadership interviews indicate that:***

- Leaders indicated that staff often told stories about students not having experience with nature because of where they lived, the lack of resources they had available, and their lack

of overall awareness (e.g., knowledge of parks in the area, how time can be spent experiencing nature, etc.). By the final week, leaders reported that students were regularly observed promoting and championing nature-loving behavior and developed a genuine curiosity for nature and their environment (e.g., protecting ants, sharing what they learned with family/friends outside of the UWE context).

- Overall, staff reported to WI leaders that they received positive student reports regarding their enjoyment and engagement in the UWE program and nature.
- Leaders provided an average rating of 5 out of 5 (1 = “not at all” to 5 = “a great deal”) when asked to rate their perceived impact of the UWE program on students building skills and confidence in the outdoors. They provided an average rating of 4 out of 5 regarding the impact UWE had on supporting students to become stewards of their environment.

**Question 4: To what extent was the UWE program implemented: As intended? In a way that met program goals?**

***End-of-Program Staff Survey results indicate that:***

- A large majority of UWE staff agreed that they liked the UWE program (92%) and their job (92%), but only 8% agreed that the training they received sufficiently trained them to implement UWE and 33% reported that UWE was easy to implement.
- Less than two-thirds of staff reported feeling confident in their ability to deliver UWE (54%) and that they were able to implement UWE programming with fidelity (58%).
- UWE staff provided high ratings about the extent to which WI leaders were supportive (ranging from 92-96% of staff members agreeing), though there was somewhat less agreement (83% of respondents) that WI leaders established clear standards and expectations for implementing the program.
- UWE staff reported high levels of agreement that students gained skills and confidence in the outdoors (96%), had time for fun and free play (96%), and generally benefited from the program (96%), but fewer staff agreed that students gained environmental stewardship and social-emotional skills.
- Most charter survey respondents reported that they liked UWE (82%) and its staff (82%), that UWE was well-coordinated in relation to their own programming (82%), and that the UWE program is important (82%) and offers potential to positively impact students (82%).

***Leadership interviews indicate that:***

- Overall, the UWE program goals were mostly met. Implementation was particularly strong in relation to goals focused on building positive relationships with students and supporting students to become stewards of their environment.
- Overall, leaders indicated that implementation quality was high across most sites. Site-based leadership arose as a critical component of high-quality implementation of programming. Providing times for site-based leaders to communicate with each other, receive support from upper-level leaders when needed, and collaborate with site-based staff to adapt as needed

were crucial to quickly resolving problems and continuing to provide quality experiences for students.

- Leaders reported that the main strengths of the UWE program included the focus on developing relationships with students, the program's ability to help students build skills and confidence in the outdoors, site-based leadership's initiative, and staff engagement in delivering the program.
- UWE programming appeared to not only have a direct impact on the students that attended but a potential ripple effect on the communities within which they were situated (e.g., lessons taught diffused outside of the program and into family discussions and interactions, UWE staff and student utilization of local green spaces drew attention to underutilized and neglected community resources and resulted in better kept and safer shared green space).

### **Question 5: In what ways could UWE programming be improved in the future?**

#### ***End-of-Program Staff Survey results indicate that:***

- Strengths of the UWE program:
  - UWE staff reported the strengths of UWE programming included: 1) engaging, hands on lessons; 2) opportunities to explore nature; 3) supportive teaming and infrastructure; and 4) students having opportunities to build positive relationships and improve social and emotional skills.
  - Charter school staff provided positive feedback about communication, collaboration, and mutual respect between school and UWE staff.
- Areas for improvement:
  - Most qualitative feedback from UWE staff on areas for future improvement focused on modifications to the curriculum that could: 1) make lessons more engaging and active, 2) better meet student developmental needs, or 3) be more responsive to student cultural backgrounds and needs.
  - UWE staff reported a need to improve partnerships with the schools. Staff felt it would be helpful to have at least one consistent and committed school teacher in every pod who knows the students in that pod.
  - Overall, UWE staff felt a stronger, common understanding of what is needed to run the program each day would be beneficial (e.g., materials, specific lessons).
  - Charter staff indicated that UWE staff would benefit from training on diversity, equity, inclusion, and biases, as well as training on culturally responsive, positive behavior interventions and supports.
  - Charter staff also felt the UWE lessons could be better differentiated based on age groups.

#### ***Leadership interviews indicate that:***

- The UWE training approach was effective by employing active training strategies, focusing on developing relationships with students, and cultivating a safe/inclusive training environment. The training could be improved by allocating more time for training and

integrating special topics focused on culturally responsiveness and positive behavior interventions and supports.

- Staffing approaches and partnerships with external agencies (e.g., Americorps, schools) could be strengthened to enhance stability at the outset of programming, as turnover appeared to impact program equilibrium.
- Leaders identified their bounds of content knowledge as a limitation to developing high-quality training experiences and tailored programming. Leaders indicated that they would like to hire experts in culturally responsive behavior management, curriculum development for students of different ages, and environmental studies/nature content to improve training and program activities.
- Leaders noted that resources and funding were difficult to obtain because of the UWE budget and schools often set limits on what was allowed for activities such as free, unstructured play at the end of each day.
- Leaders indicated that they allowed schools to customize their schedules, which caused difficulties for UWE program coordination. In the future they would like to enforce more standardized schedules across and within sites (and/or work with fewer sites).
- Leaders shared a variety of plans for supporting UWE and/or similar programs in the future based on what was learned during the summer of 2021. These plans are embedded throughout the recommendations below.

## **Recommendations**

The following section summarizes recommendations and next steps for UWE and/or similar WI programming. Some of these points were raised and are already being acted upon by Wilderness Inquiry, but we also include new suggestions that arose as a result of this report.

### ***Staff Recruitment and Training***

- Leaders noted that **starting the hiring processes earlier** could be one way to address some of the staffing issues that significantly disrupted the equilibrium of UWE programming in the first few weeks of implementation (though this may still have been problematic given the difficulty with hiring across all industries during the summer of 2021).
- Leaders discussed a need to **generally strengthen partnerships and communication with outside organizations** such as Americorps and partner schools, which could facilitate staff recruitment and retention. For example, working with schools to understand the number of students expected to attend UWE well before initiating the hiring process would help leaders better ensure appropriate capacity and make decisions about setting enrollment limits prior to the UWE program start if necessary.
- Leaders reported that delivering passive training elements, such as lectures and traditional didactics were difficult. Leaders indicated that they would like to **allocate more team working time specifically to UWE staff being onsite with school staff to action plan their space and the curriculum in a more comprehensive and detailed fashion**. This could allow for better tailoring of content, expectations, resources, and procedures, then relying on guidelines that are written to be very generalizable.

- **Lengthening training from four days to two weeks** would allow for more active team working/action planning and include content that was not previously included.
  - Alternatively, **changing hiring criteria to require a minimum level of experience** working with youth in educational settings could reduce a need for prolonged training on classroom management.
- Leaders noted that training could be significantly improved by allocating **more time for training staff on cultural responsiveness and positive behavior interventions and supports**.
- Leaders reported that they plan to **center future training activities on implicit and explicit biases**, how these can consciously and unconsciously impact decision-making and actions, and how these influences are amplified when staff feel pressured and in a continuous “*crisis mode*.”
- Additionally, we recommend providing UWE staff with **access to support on culturally responsive positive behavior interventions and support throughout the programming period, not just during initial training**. This could take the form of intermittent training sessions throughout the program timeframe, formal observations and coaching on a regular basis, weekly consulting sessions with a behavior expert that staff could join as needed, and/or simply being able to email or call a behavior consultant when challenging situations arose that would benefit from additional expertise.

### ***Program Implementation***

- Leaders reported that they would like to **develop clearer agreements or contract with partnering schools** regarding the school’s responsibilities, services, and overall involvement in UWE activities, specifically regarding setting norms and supports (e.g., staff) to help with behavior management.
  - UWE staff and leaders each suggested that it would be helpful to have **at least one consistent and committed teacher from the charter school in every learning group** to support behavior management (especially in the beginning of the program, as UWE staff are just meeting new students).
- Leaders also indicated that they would like to **hire and/or consult with content experts** in curriculum development for students of different ages and environmental studies/nature content to improve program activities and better differentiate them by age group.
- We recommend **establishing and communicating clearer “standards and expectations for implementation of the program,”** for UWE staff during initial training and throughout program delivery, as this was an item with lower agreement levels on the staff survey.
- We also recommend setting up **regular fidelity checks (observations) for all staff**. These should happen frequently for all in the beginning of program delivery and should remain frequent (at least weekly) for any staff who demonstrate low fidelity of implementation. Ideally, these observations should be paired with coaching (including observations, feedback, and modeling) that will help staff improve their fidelity of program delivery.

### ***Program Goals & Evaluation***

- For future evaluations of UWE or similar new WI programs, we recommend **focusing evaluation on factors related to staff training and implementation of the program**. Newly developed programs, especially those that are only implemented across a short period of time, rarely result in large impacts on student outcomes, especially if the fidelity of implementation of program delivery is low or unknown.
- We also recommend **engaging in a more systematic approach to developing program goals and objectives** (e.g., formal development of a logic model or theory of action). Although the UWE program goals were clear and developed based on research, the UWE program would benefit from working to more clearly articulate program resources, activities, outputs, and outcomes (short, medium, and long term). Developing a clear logic model would support both implementation and evaluation of UWE.
  - By establishing short-, medium-, and long-term goals, measurement of program outcomes will be more precise and aligned to appropriate outcome expectations. For example, one might argue that environmental stewardship is a more distal outcome/goal of the program, so we may not expect to see immediate change in these skills compared to something like confidence in the outdoors (as was indeed observed in staff ratings of students' skill development during UWE).
  - A tool such as the [W.K. Kellogg Foundation Logic Model Development Guide](#) could help guide this work.
- We specifically recommend **integrating the program's focus on developing strong positive relationships between staff and youth into the stated UWE program goals**, given the key role this played in summer 2021 programming. Having this factor articulated in the goals would help ensure that this factor could be adequately measured in future evaluations of the program (e.g., though student survey questions about connections to staff).
- In addition to measuring and attending to implementation factors we recommend securing additional funding to **support a more coordinated and robust approach to evaluating student outcomes** (which would allow for a closer examination of alignment between pre-post data for specific student groups in the context of factors such as attendance).

### ***General Recommendations and Next Steps***

- **Leaders plan to complete a broad debrief with program staff and leadership** about where everyone stands/feels about their current partnerships and approaches.
- **Leaders would like to explore alternative models for the UWE program**, with consideration of a few different models/adaptations:
  - Specifically, ideas around adapting the UWE program format included keeping the current summer-long format but be more strategic about the sites selected specifically for the UWE program based on readiness factors (e.g., select sites with pre-existing conditions that are most optimal for nature engagement, and allocate sites that may not have capacity and resources available to engage students in nature to projects that focus on building that capacity first via a separate “re-greening”

project set to start soon). This would allow communities to engage in projects that would best meet their current needs and allow students/staff the resources necessary to achieve UWE program goals.

- An alternative approach was to return to a weeklong model, with which WI has shown success previously and would essentially *“take the best parts of this programming and integrate it into our successful models.”*
- **Leaders would like to make substantial structural and content changes to keep the program “fresh” for students who engage in UWE multiple years in a row** and ensure that content is developmentally appropriate for the age range of students attending the program.
- In addition to the plans outlined above, we also recommend **using the lessons learned from the summer 2021 UWE program implementation to inform all WI programming moving forward**, especially learning tied to factors that strengthened or inhibited staff ability to implement the program with fidelity.

- Although no substantial UWE program impacts were directly observed on the student survey outcomes measured in this evaluation, staff reports indicated that program outcomes were achieved, especially students gaining confidence in the outdoors, having time for free play, and generally benefitting from the experience. Perhaps more importantly, the learning about program implementation that happened at the staff and leadership levels of WI was substantial and should continue to inform future programming for years to come.

## Appendix A: End-of-Program Staff Survey

### Demographics (All respondents)

1. Who is your employer?
  - a. Wilderness Inquiry / Americorps
  - b. A charter school
2. Which site(s) did you primarily work at this summer (excluding substituting at other sites)? Select all that apply.
  - a. Hennepin Schools
  - b. Hiawatha College Prep
  - c. KIPP Northstar MN
  - d. New Millennium Academy
  - e. Prodeo Academy
3. Which grade levels did you typically work with? Select all that apply.
  - a. Kindergartners
  - b. 1st graders
  - c. 2nd graders
  - d. 3rd graders
  - e. 4th graders
  - f. 5th graders
  - g. 6th graders
  - h. 7th graders
  - i. 8th graders
4. Prior to this summer's programming, approximately how long had you worked in schools/educational settings with youth?
  - a. This was my first experience working in schools/educational settings with youth
  - b. 1 month - 1 year
  - c. 2-4 years
  - d. 5-7 years
  - e. More than 7 years
5. I describe myself as:
  - a. American Indian
  - b. Asian American
  - c. Black/African American
  - d. Hispanic or Latino
  - e. White
  - f. Multiracial
  - g. Other
  - h. Prefer not to answer
6. I describe myself as:
  - a. Female
  - b. Male
  - c. Nonbinary
  - d. Prefer not to answer

## UWE staff questions

### *Training & Implementation*

7. Likert scale items with response options: *Agree, Somewhat Agree, Neither Agree or Disagree, Somewhat Disagree, Disagree*
- a. I like the Urban Wilderness Explorers (UWE) program.
  - b. The UWE program was easy to implement.
  - c. The UWE program met the needs of the students I worked with.
  - d. The training I received sufficiently prepared me to implement the UWE program as it was intended to be delivered.
  - e. I felt confident in my ability to deliver the UWE program as it was intended to be delivered.
  - f. For the most part, I delivered the UWE program as it was intended to be delivered (e.g., completed most lessons/activities in the day's lesson plan each day).
  - g. I had the materials and space I needed to deliver the UWE program.
  - h. I believe the UWE program is important for kids to experience.
  - i. I think the UWE program offers significant potential to positively impact students.
  - j. UWE program leadership established clear standards and expectations for the implementation of the program.
  - k. UWE program leadership recognized and appreciated staff efforts toward successful implementation of the program.
  - l. UWE program leadership carried on through the challenges of implementing the program when confronted with setbacks.
  - m. UWE program leadership was accessible if I needed help with implementing the program.

### *Student Outcomes / Program Goals*

8. Likert scale items with response options: *Agree, Somewhat Agree, Neither Agree or Disagree, Somewhat Disagree, Disagree*
- a. In general, the students I worked with...
    - i. strengthened their social-emotional learning skills.
    - ii. built skills and confidence in the outdoors.
    - iii. became stewards of their environment.
    - iv. had time for fun and free playtime so they could self-explore.
    - v. benefited from this experience.
9. "On-task" is defined here as: Actively or passively participating in the assigned task or ongoing activity. For example: writing, raising hands, answering a question, talking about a lesson (to staff or peers), listening to the teacher, reading silently, or looking at instructional materials.
- a. Thinking about a typical day this summer, approximately what percent of the time were your morning session students on-task? (0-100% slider)
  - b. Thinking about a typical day this summer, approximately what percent of the time were your afternoon session students on-task? (0-100% slider)
  - c. In general, were the students you worked with:
    - i. Most on task towards the beginning of summer programming (weeks 1-2)?
    - ii. Most on task during the middle of summer programming (weeks 3-4)?
    - iii. Most on task towards the end of summer programming (weeks 5-6)?
    - iv. No pattern was observed
10. "Engagement in learning" is defined here as: Demonstrating attention, curiosity, interest, excitement, or passion in what they are learning or being taught.

- a. Thinking about a typical day this summer, approximately what percent of the time were your morning session students engaged in learning? (0-100% slider)
- b. Thinking about a typical day this summer, approximately what percent of the time were your afternoon session students engaged in learning? (0-100% slider)
- c. In general, were the students you worked with:
  - i. Most engaged towards the beginning of summer programming (weeks 1-2)?
  - ii. Most engaged during the middle of summer programming (weeks 3-4)?
  - iii. Most engaged towards the end of summer programming (weeks 5-6)?
  - iv. No pattern was observed

*Open ended questions*

11. Thinking about your experiences delivering the UWE program this summer:
  - a. What went well?
  - b. What could be improved upon in the future?
  - c. Do you have any additional stories of particular successes or challenges you would like to share about implementing the UWE program this summer? If so, please share below.

**Charter school staff questions**

*Interactions with the Urban Wilderness Explorers (UWE) program/staff*

1. Likert scale items with response options: *Agree, Somewhat Agree, Neither Agree or Disagree, Somewhat Disagree, Disagree, Not applicable*
  - a. I liked the Wilderness Inquiry / UWE staff I worked with.
  - b. The Wilderness Inquiry / UWE staff I worked with did a good job of coordinating their summer programming with our school's services.
  - c. I like the UWE program.
  - d. The UWE program met the needs of the students I worked with.
  - e. I believe the UWE program is important for students to experience.
  - f. I think the UWE program offers significant potential to positively impact students.

*Student engagement / on-task behavior*

2. "On-task" is defined here as: Actively or passively participating in the assigned task or ongoing activity. For example: writing, raising hands, answering a question, talking about a lesson (to staff or peers), listening to the teacher, reading silently, or looking at instructional materials.
  - a. Thinking about a typical day this summer, approximately what percent of the time were your morning session students on-task? (0-100% slider)
  - b. Thinking about a typical day this summer, approximately what percent of the time were your afternoon session students on-task? (0-100% slider)
  - c. In general, were the students you worked with:
    - i. Most on task towards the beginning of summer programming (weeks 1-2)?
    - ii. Most on task during the middle of summer programming (weeks 3-4)?
    - iii. Most on task towards the end of summer programming (weeks 5-6)?
    - iv. No pattern was observed
3. "Engagement in learning" is defined here as: Demonstrating attention, curiosity, interest, excitement, or passion in what they are learning or being taught.
  - a. Thinking about a typical day this summer, approximately what percent of the time were your morning session students engaged in learning? (0-100% slider)

- b. Thinking about a typical day this summer, approximately what percent of the time were your afternoon session students engaged in learning? (0-100% slider)
- c. In general, were the students you worked with:
  - i. Most engaged towards the beginning of summer programming (weeks 1-2)?
  - ii. Most engaged during the middle of summer programming (weeks 3-4)?
  - iii. Most engaged towards the end of summer programming (weeks 5-6)?
  - iv. No pattern was observed

*Open-ended questions*

- 4. Thinking about your interactions with the UWE program this summer:
  - a. What went well?
  - b. What could be improved upon in the future?

# Appendix B: Weekly Student Engagement Survey



## Demographics

### Brief Weekly Student Engagement Form

Please complete this 2-minute form each Wednesday afternoon as part of an evaluation of summer programming at your site (led by Wilderness Inquiry and the University of MN). These data will be kept confidential and will be carefully de-identified in any reporting.

*\*Note: If you complete at least 3 of these weekly forms (out of 5 total) plus a final staff survey at the end of July, you will be sent a \$10 gift card as a thank you.*

**What is your name?**

**Who is your employer?**

- Wilderness Inquiry (Urban Wilderness Explorers program)
- A charter school

**When did you teach on Wednesday? Check all that apply.**

- In the morning
- In the afternoon
- I did not teach on Wednesday

## AM

### Morning Session

Please provide information about your summer school session this Wednesday morning.

When asked about "your students," please respond about the group of students you are primarily responsible for and/or worked with for a majority of the morning session.

**What site did you work at on Wednesday morning?**

- Hennepin Schools
- Hiawatha College Prep
- KIPP Northstar MN
- New Millennium Academy
- Prodeo Academy

**What grade levels did you teach on Wednesday morning? Select all that apply.**

- Kindergarteners
- 1st graders
- 2nd graders
- 3rd graders
- 4th graders
- 5th graders
- 6th graders
- 7th graders
- 8th graders

**"On-task" is defined here as:** Actively or passively participating in the assigned task or ongoing activity. For example: writing, raising hand, answering a question, talking about a lesson (to staff or peers), listening to the teacher, reading silently, or looking at instructional materials.

**Thinking about your Wednesday morning summer school session, approximately what percent of the time were your students on-task?**



**"Engagement in learning" is defined here as:** Demonstrating attention, curiosity, interest, excitement, or passion in what they are learning or being taught.

Thinking about your Wednesday morning summer school session, approximately what percent of the time were your students engaged in learning?



## PM

### Afternoon Session

Please provide information about your summer school session this Wednesday afternoon.

*When asked about "your students," please respond about the group of students you are primarily responsible for and/or worked with for a majority of the afternoon session.*

**What site did you work at on Wednesday afternoon?**

- Hennepin Schools
- Hiawatha College Prep
- KIPP Northstar MN
- New Millennium Academy
- Prodeo Academy

**What grade levels did you teach on Wednesday afternoon? Select all that apply.**

- Kindergarteners
- 1st graders
- 2nd graders
- 3rd graders
- 4th graders
- 5th graders
- 6th graders
- 7th graders
- 8th graders

**"On-task" is defined here as:** Actively or passively participating in the assigned task or ongoing activity. For example: writing, raising hand, answering a question, talking about a lesson (to staff or peers), listening to the teacher, reading silently, or looking at instructional materials.

Thinking about your Wednesday afternoon summer school session, approximately what percent of the time were your students on-task?



**"Engagement in learning" is defined here as:** Demonstrating attention, curiosity, interest, excitement, or passion in what they are learning or being taught.

Thinking about your Wednesday afternoon summer school session, approximately what percent of the time were your students engaged in learning?



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# Appendix C: UWE Student Survey Administration Instructions



Contact Information: [LPotter@umn.edu](mailto:LPotter@umn.edu)

## Instructions for Administering the Urban Wilderness Explorers Student Survey

### Materials needed:

- These instructions
- Survey forms (one per student)
- Pencils or pens (one per student)
- Envelope to put surveys in when completed (one envelope per student group)

### Administration Instructions:

1. Hand out surveys and ensure each student has a pen or pencil (any pencil or dark pen is ok).
2. Read this script for introducing the survey:

*"Today we are taking a survey so you can tell us about yourself and your thoughts about this outdoor class. This information will be used to help us learn about you and your experiences in this summer program so that we can make the program better."*

*"This is a survey, NOT a test. There are no right or wrong answers. Your responses are optional (meaning you do not have to answer the questions), but your answers will help make our program better. If you choose not to answer, it won't affect your relationship with Wilderness Inquiry, your outdoor teacher, or your school. However, please try to answer all of the questions that you can."*

*"You will **not** be writing your name on this form, so your answers will be anonymous (no one will know who filled out each survey). All student responses will also be kept private."*

*"If you have a question while you are taking the survey, please ask a teacher. But please do not talk with other students while you are filling out the survey. The survey will take about 15-30 minutes to complete. Does anyone have any questions before we begin?"*

3. Begin the survey:

*"I will read each question aloud. You may read the questions to yourself, or you can follow along as I read them. Raise your hand if you need me to repeat anything."*

*"To respond to each question, completely fill on the small oval next to the answer you choose. [Point out the "CORRECT" oval example at the top of the form] Choose only one answer for each question."*

4. Read each question and the response options aloud from the survey [see next page for survey questions].
  - a. **K-3<sup>rd</sup> graders: STOP when you get to Section 3 on the back page.**
  - b. 4<sup>th</sup>-8<sup>th</sup> graders: Have students complete the entire survey, including Section 3.
5. When they finish: *"Thanks so much for your help! We'll ask you to fill out another survey at the end of summer school to get more information about you and your experiences."*

# Appendix D: UWE Student Survey



Wilderness  
Inquiry

## URBAN WILDERNESS EXPLORERS STUDENT SURVEY

This is a survey, NOT a test. There are no right or wrong answers. Your responses are optional, but your answers will help make our program better. If you choose not to answer, it won't affect your relationship with Wilderness Inquiry or your school. *Thank you for your help!*

### DIRECTIONS

Read each statement below. Choose the best answer for each statement by completely filling in an oval.  
Please use black or blue pen, or pencil and fill in the appropriate oval as shown below.

CORRECT: ● INCORRECT: ✗ ✓ ○ ●

**ALL STUDENTS** - Please respond to the following questions:

### SCHOOL

Completely fill in the oval that best applies.

1. What building are you attending summer school at?

- Hennepin Schools
- Hiawatha College Prep
- KIPP Northstar MN
- New Millennium Academy
- Prodeo Academy

### ABOUT

Completely fill in the oval that best applies.

2. I describe myself as:

- American Indian
- Asian American
- Black/African American
- Hispanic or Latino
- White
- Multiracial
- Other
- Prefer not to answer

3. I describe myself as:

- Female
- Male
- Nonbinary
- Prefer not to answer

4. What grade will you be in this fall?

- |                                    |                                 |                                 |                                 |                                 |
|------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| <input type="radio"/> Kindergarten | <input type="radio"/> 1st grade | <input type="radio"/> 2nd grade | <input type="radio"/> 3rd grade | <input type="radio"/> 4th grade |
| <input type="radio"/> 5th grade    | <input type="radio"/> 6th grade | <input type="radio"/> 7th grade | <input type="radio"/> 8th grade | <input type="radio"/> 9th grade |

## SECTION 1

Choose the best answer for each statement.

Read each statement below and <b>think about how much the statement describes you.</b>	 Not like me at all	 Not much like me	 Somewhat like me	 Very much like me
1. I blame others when I'm in trouble.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I think about how others feel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I can control how I behave.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I am good at solving conflicts with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I feel responsible for how I act.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I care about how others feel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I think before I act.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I get along well with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I am good at deciding right from wrong.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. What others think is important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I am good at waiting for what I want.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I have one or more close friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## SECTION 2

Choose the best answer for each statement.

Read each statement below and <b>think about how much the statement describes you.</b>	 Disagree a lot	 Disagree	 Agree	 Agree a lot
1. I pay attention in my outdoor class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I follow the rules in my outdoor class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. When I don't do well in my outdoor class, I work harder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I stay out of trouble in my outdoor class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I feel happy in my outdoor class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. My outdoor class is a fun place to be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I like students who are in my outdoor class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I like my outdoor class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**4TH-8TH GRADERS ONLY** - Please respond to the following questions:

## SECTION 3

Choose the best answer for each statement.

Read each statement below and <b>think about how much the statement describes you.</b>	 Very untrue of me	 Somewhat untrue of me	 Somewhat true of me	 Very true of me
1. I like to try new things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I am likely to try a new outdoor activity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I believe I will be able to accomplish the things I decide I want to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I can be successful when I try something scary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I think about ways to overcome challenges when trying something scary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I am interested in helping the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. It is partly my responsibility to care for the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I know something I can do to make the environment better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I am interested in jobs where I would work in nature.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I am interested in jobs that are about protecting the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I am interested in jobs that have to do with science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I am interested in science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I'd be willing to tell a friend about how to protect the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I would like to go on a field trip where I learn about the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I like to do science even when I'm not in school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I would like to go on a field trip where I learn about science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Appendix E: Leadership Interview Questions

## Wilderness Inquiry Leadership Interview Questions -- August 2021 Urban Wilderness Explorers (UWE) Program

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### Introductions & Role

1. Briefly describe your main role in designing and delivering the UWE program.

### Training, Goals, & Implementation

2. Thinking back to the training your team led for UWE staff in June:
  - a. What went well?
  - b. What could be improved upon in future training efforts?
3. Tell us the story of how the UWE goals were selected/developed.
  - a. *Goals: (1) Students will strengthen their social-emotional learning; (2) Students will build skills and confidence in the outdoors; (3) Students will become stewards of their environment; (4) Students will have time for fun and free playtime so they can self-explore*
4. What are the main activities that staff need to implement for UWE to be successful in reaching the intended goals? (How would you define/describe the “essential components” of this work?)
  - a. *If you were to walk into a UWE lesson, what would you expect to see staff doing?*
5. On a scale of 1-10, (1=not in place at all, 10=fully in place across all staff and sites), to what extent were these “essential components” in place during this summer’s UWE programming?
6. Thinking about implementation of UWE this summer in general:
  - a. What went well?
  - b. What were the biggest challenges you and your team faced?
  - c. What would you change when/if implementing UWE in the future?

### Perceived Impact

7. On a scale of 1-5 (1=not at all, 5=a great deal), to what extent did UWE participants:
  - a. strengthen their social-emotional skills?
  - b. build skills and confidence in the outdoors?
  - c. become stewards of their environment?
  - d. have time for fun and free playtime so they could self-explore?
  - e. demonstrate on-task behavior?
  - f. engage in learning?
  - g. benefit from UWE programming?
8. Overall, how would you describe the impact the UWE program had on students (if any)?

### Next Steps and Wrap Up

9. What are your plans for UWE programming in the future?
10. Is there anything else you would like to add that we did not cover?

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