Knowledge Capture Formative Evaluation
Growing SOIL
January 30, 2015

GROWING SOIL Mid-Year Report
FORMATIVE EVALUATION

The Knowledge Capture (KC) Program completed evaluation of the second quarter of implementation for the Growing SOIL Project in completing the following work. This report includes work conducted between October 26, 2014 and January 10, 2015. The first section of the evaluation will provide an overview of work completed to support evaluation of the Growing SOIL Cohort 1 (9 School Districts) and the second section will address work completed for Cohort 2 (6 Districts). A chronology for all work conducted is presented in the Appendix and is organized by cohort activities. This report will present findings for the Cohort 1 Post-Implementation Survey conducted on November 8, 2014, and for the Cohort 2 Pre-Design Survey conducted on January 9. Supporting documents for these surveys are presented in the Appendix of this report.

COHORT 1 POST-IMPLEMENTATION SURVEY (12/6/2014)

All surveys are conducted via a web-based platform and requires that survey respondents indicate agreement (question #1) to voluntarily participate in an anonymous survey. Consent is required before the survey is activated for the respondent to complete.

This brief overview of the of the pre-planning survey questions provides a short summary of issues that the Growing SOIL Team members were asked to address in questions 2-10:

Qs 2-4 focus on the status of work in progressing with increased use of the outdoor lab for the fall term 2014, including curriculum integration, teacher collaboration in developing content/projects, and student engagement with regard to the STEM Outdoor Innovation Lab (SOIL).

Q5 and 11 asked participants to rate methods of communication regarding work on building their outdoor lab program, as well as additional desired support and/or resources for meeting goals.

Qs 6-7 allowed participants to respond to open-ended questions about essential administrative support for the SOIL project.

Qs 8-10 centered on progress with establishing community partnerships, sustainability of community partnerships, and progress with planning and implementation of events/activities/projects with community partners.

This discussion focuses on Q2, Q4, Q6,

Seven of the ten respondents said they had made progress with integrating their curriculum for use in the outdoor lab (70%) and over half (n=6) said they had collaborated with other teachers in developing outdoor lab projects. In particular, 50% of the teachers reported that they had used science curriculum with students in the outdoor lab. Additionally they noted they had conducted other kinds of activities with students as shown below.

Q2b: How did you integrate your curriculum for use in the outdoor lab? (n=7 respondents)	**Number of Responses*** (n=14)
Science curriculum	5
Lab work	3
Design Challenge/Specific project	2
Student reflections	2
Skills lesson	1
Problem based learning	1
*Some participants expressed multiple ideas in their response.	

Seven of the respondents also noted that students continued their interest in the SOIL lab following completion of construction, including working at maintaining the site (Q4), demonstrating student ownership of the outdoor lab.

Administrative support from the building leader was a key issue identified in the focus group discussions conducted in September, 2014. Four respondents reported that they had overall support. Nine respondents identified five specific ways that their

building administrator had given them support in meeting goals for the fall term. Two respondents indicated that gaining administrative support continued to be a challenge.

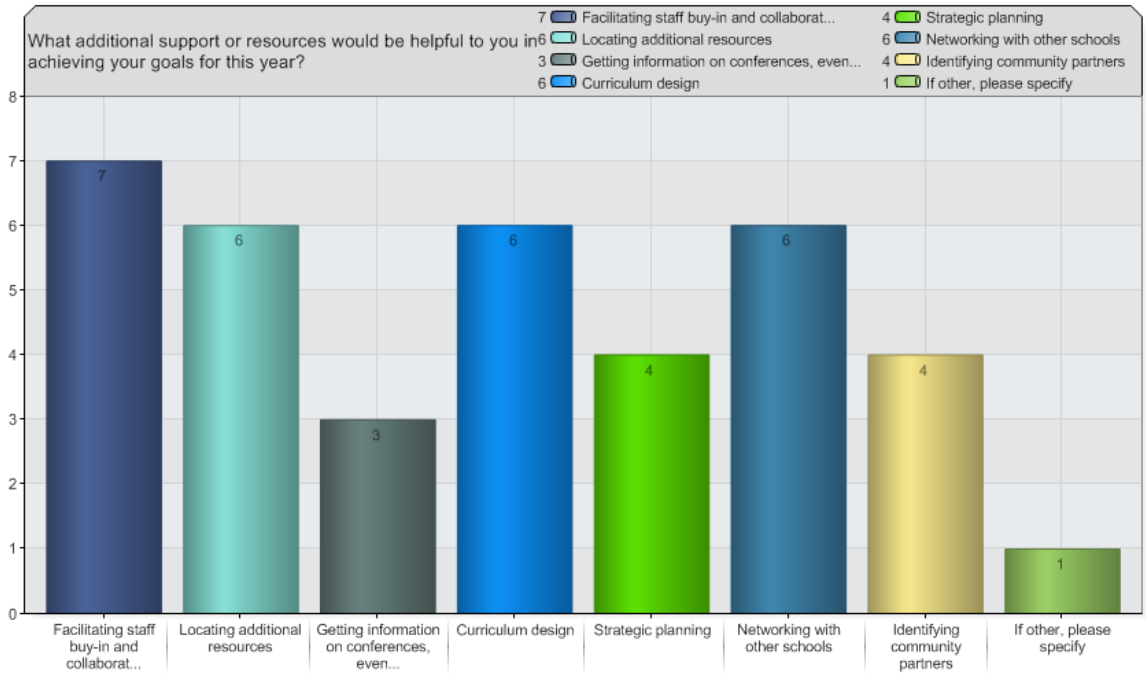
Q6: What type of administrative support has occurred to support the outdoor lab? (n=9 respondents)	Number of Responses* (n=12)
General support	4
Assistance with logistics and red tape	2
Time for/at meetings	2
Ordering supplies	2
Budget	1
Teacher autonomy	1

When asked what additional administrative support would be helpful to meeting goals for effective use of the outdoor lab (Q7), teachers identified issues associated with more time to work in the lab and to collaborate, assistance with establishing community partners, and instructional support, including PD and curriculum development. One teacher identified the need for improved security of the outdoor space.

Q7: What administrative support is essential to achieving goals for the outdoor lab? (n=10 respondents)	Number of Responses* (n=11)
Collaboration	2
Community relations	2
Planning time	2
Time to work in lab	2
Curriculum design	1
PD	1
Protection of outdoor space	1
*Some participants expressed multiple ideas in their response.	

Nine of the ten respondents reported that they had established community partnerships, and eight of the ten reported that their community partners were involved with planning for sustainability (Q10).

Teachers were given a list to select from for additional support or resources that they felt would help to ensure success for the outdoor lab and student learning. Over half of the ten respondents said they wanted support to increase staff buy-in, followed by assistance with locating resources, designing curriculum, and networking with other schools. Four respondents identified strategic planning and continuing effort to establish community partners as essential areas of work where additional support would be most helpful.



*Some participants expressed multiple ideas in their response; total respondents, n=10; total responses, n=37.

COHORT 2 PRE-PLANNING SURVEY

Cohort 2 orientation and official launch of the implementation phase of the Growing SOIL program was held on January 9-10, 2015. The Knowledge Capture team conducted both structured observation over the two-day planning workshop, as well as a pre-planning survey. The bullet point report of the observation, and the full survey analysis appear in the Appendix of this report.

The discussion that follows focuses on the analysis of the pre-planning survey of January 9, 2015. All surveys are conducted via a web-based platform and requires that survey respondents indicate agreement (question #1) to voluntarily participate in an anonymous survey. Consent is required before the survey is activated for the respondent to complete.

The survey was conducted on January 9, 2015 with Design Team participants who attended the on-site workshop. Additionally, because a small number of School Design Team members were not able to attend the meeting both days, the survey link was posted on Basecamp on Monday, January 12. It was closed on Wednesday, January 14, 2015. A total of 13 individuals (86%) completed the survey of the 15 team members that attended the two-day workshop. Additionally, 16 of the 23 members across all districts (73%) completed the P3 online course, *Introduction to Transdisciplinary Problem Based Learning*.

This brief overview of the of the pre-planning survey questions provides a short summary of issues that Design Team respondents were asked to address in questions 2-13:

Qs 2-4 are profile questions to provide the implementation team with background information on the members of the Design Teams, including number of years in the field of education, current content areas, and their comfort level in reaching out to others within their building.

Q5 allowed teachers to respond to an open-ended question about their experience with outdoor learning activities.

Q6 asked respondents about their comfort level with taking students out of the classroom.

Qs 7-10 are open-ended questions about specific goals, vision, and anticipated challenges for the STEM Outdoor Innovation Labs. (Q7 asked about goals for students, and Q8 asked about goals for teachers.) Q9 asked respondents to describe how their STEM Outdoor Innovation Lab relates to transdisciplinary problem based learning. Q10 asked respondents to list anticipated challenges in implementation.

Qs 11-13 address support and resources essential to meeting goals by June 2015. Q11 asks respondents whether they have experience reaching out to community partners, and then asks them to list prior experiences in reaching out to the community. Q12 asks about comfort level with reaching out, and Q13 is an open-ended question concerning additional support or resources that might be helpful in meeting their goals.

Some of the questions in the survey are designed to inform the PAST implementation team about the group as a whole, as well as identify areas of special importance for the design of the training program. This includes the profile questions, as well as other questions about knowledge of the different components of the project and perceptions about areas that they perceived to be more challenging. This information is utilized to design the workshops and on-site visits, one-on-one meetings in a process that can effectively meet particular needs during early phases of design and planning.

Understanding of STEM, transdisciplinary problem based learning, teacher collaboration, integration of content areas in developing curriculum are also reflected in the pre-design survey to gain insight on the value of the P3 online training that was a component of preparation for the January launch of design and planning of the outdoor lab.

Summary of Issues Identified by Cohort 2 Participants

The discussion that follows focuses on Q5, Q7, Q8, Q9, Q10, and Q13.

When asked about experience working with students outside the classroom (Q5), 12 respondents indicated that they did have experience with outdoor learning. The table below shows 9 specific outdoor activities conducted by teachers. Among the top answers cited, 46% of teachers described experience in conducting outdoor lab work (n=6), and 69% cited conducting activities related to science instruction including ecology, astronomy, specimen collection, and creating scientific typologies.

Q5b: Types of outdoor activities (n=12)	**Number of Responses*** (n=21)
Labs	6
Ecology	5
Change of Venue	3
Walks	2
Astronomy	1
Specimen Collection	1
Field Trips	1
Mapping	1
Scientific Typologies	1
*Some participants expressed multiple ideas in their response.	

Respondents were asked to describe three top goals for the STEM outdoor lab (Q7). More than half of the respondents (n=8) cited the top goal was to more effectively engage students in learning, as well as create a learning experience with "real world application" to achieve student learning in a meaningful way (n=5).

Q7: Please describe your top three goals for your students with STEM Outdoor Innovation Labs. (n=13)	Number of Responses* (n=32)
Student Engagement	8
Change of venue/ place	6
Real world application	5
Appreciation for the outdoors	3
Creating outdoor Leaning Experiences	2
Instruction methods	2
Critical thinking	1
Developing outdoor learning spaces	1
Experimentation	1
Inquiry based-learning	1
Problem-solving	1
Transdisciplinary learning	1
*Some participants expressed multiple ideas in their response.	

Respondents were also asked to share their views about the way in which teachers in their building could use the outdoor learning lab. Among the top three answers, teachers (n=4) identified the potential for creating curriculum for outdoor learning, increasing student engagement, and developing creative use of the outdoor space on the school grounds.

Transdisciplinary learning was also cited by three individual respondents, suggesting that these teachers will pursue opportunities to work with other teachers across content areas to develop integrated curriculum. Two respondents also noted collaboration with other teachers as an important goal. In the table below, 12 ideas were identified in the survey responses.

Q8: Please describe your top three goals for teachers in your school with STEM Outdoor Innovation Labs. (n=12)	Number of Responses* (n=26)
Curriculum	4
Engagement	4
Use of outdoor space	4
Transdisciplinary learning	3
Comfort teaching outdoors	2
Create outdoor learning opportunities	2
Teacher collaboration	2
Interest in the outdoors	1
Fun for teachers and students	1
Problem Based Learning	1
Student feedback	1
Real world application	1
*Some participants expressed multiple ideas in their response.	

Cohort 2 team members were asked to complete the P3 online course as an important component of preparation for the design and implementation phase (January to June 2015). Question 9 looks at the concepts that Cohort 2 teachers developed following completion of the P3 coursework. Teachers were asked to describe how the outdoor lab relates to curriculum designed for transdisciplinary problem based learning (TPBL). Integrated content, teacher collaboration, and real world application were among the top ideas. This question also elicited one response identifying "student collaboration" as an aspect of TPBL. The table below identifies 14 concepts associated with TPBL.

Q9: As part of the SOIL project team, please describe the top three ways that your STEM Outdoor Innovation Lab relates to the transdisciplinary problem based learning (TPBL) curriculum. (n=11)	Number of Responses* (n=27)
Problem Based Learning	5
Transdisciplinary education	4
Real world application	3
Teacher collaboration	3
Create outdoor learning space	2
Science curriculum	2
Common core	1
Opens links to community	1
Flexibility	1
Stimulating student growth	1
Student collaboration	1
Student engagement	1
Teacher buy-in	1
Teachers see "The Big Picture"	1
*Some participants expressed multiple ideas in their response.	

Challenges identified by teachers in implementing their outdoor lab plan focus on concerns about time management (N=9), followed by fostering teacher buy-in among their colleagues (n=6). Logistics, cost factors, materials, accessibility, and maintenance are also listed among the challenges cited by teachers, but are not of high concern with only one individual citing each of these issues as a major challenge. The table below identifies a range of issues that the PAST implementation team will review with individual school teams in the context of workshops and site visits.

Q10: What do you anticipate to be the top three challenges in implementing STEM Outdoor Innovation Labs? (n=12)	Number of Responses* (n=30)
Time management	9
Teacher buy-in	6
Planning time	2
Teacher collaboration	2
Accessibility	1
Connecting to curriculum	1
Cost	1
Distance management	1
Effective use	1
Logistics	1
Maintenance	1
Materials	1
Policy	1
Project focus	1
Transdisciplinary use	1
*Some participants expressed multiple ideas in their response.	

Teachers (n=7) identified additional support they felt could be helpful to them in achieving their goals for creating an outdoor learning lab (Q13). Respondents cited 6 areas that could be important for them during the design and planning phase of work including:

- Additional project team work time
- Catalog/website of supplies
- Guidance (throughout process)
- Ideas for outdoor learning
- Strategies for attaining more funding
- More professional development regarding use of STEM Outdoor Learning Labs

The current schedule for Cohort 2 includes an early spring meeting (March 2015) when school teams will give presentations on their design for an outdoor lab. Participants will be invited to take part in a focus group to discuss their experience and share insights on their achievements and remaining challenges.

Additionally both Cohort 1 and Cohort 2 are invited to attend the Growing SOIL celebration in June 2015 to give their final presentations. The final post-implementation survey will be conducted during that time, providing online access to the survey to determine status of project implementation as well as planning for ongoing use and management of the outdoor lab during coming years.

Knowledge Capture
APPENDIX
Growing SOIL

SOIL Chronology of Knowledge Capture Activities
October 26, 2014 to January 10, 2015

Cohort 1

Growing SOIL Cohort 1 Post-Planning Survey Bullet Point
December 6, 2014

Cohort 2

Growing SOIL Cohort 2 Orientation Bullet Point Report
January 9 & 10, 2015

Growing SOIL Cohort 2 Pre-Planning Survey Bullet Point Report
January 9, 2015

Growing SOIL Chronology of Knowledge Capture Activities
October 26, 2014 to January 10, 2015

KC Staff	Cohort	Date	Event	BP*	Participants
MM	1	10/27/14	Cohort 1 Online Community Partner Meeting		Beth Witte, Meghen Matta, Mathew Broda, Herb Broda, Jim
MM	1	10/30/14	Cohort 1 Online Community Partner Meeting		Beth Witte, Meghen Matta, Mathew Broda, Herb Broda, Jim
MM	1	11/8/14	Cohort 1 Post-Implementation Survey Design Meeting		Monica Hunter, Ketal Patel, Beth Witte, Maria Green Cohen, Meghen Matta, Alyssa Reder
MM	1	12/6/14	Cohort 1 Presentations [At COSI]	Yes	Beth Witte, Ketal Patel, Sheli Smith, Kat Deaner, Jim Dvorsky, Herb Broda, Mathew Broda, Meghen Matta
MM/ RO [KC Intern]	2	1/9-10/15	Cohort 2 Orientation PD - Observation/Pre-Design Survey	Yes	Beth Witte, Herba Broda, Mathew Broda, Jim Dvorsky, Ketal Patel, Ellen Cahill, Meghen Matta, Rachel Orsborne

*Bullet Point Report

PAST InnovationLab
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STEM Outdoor Innovation Labs Post Survey 2014 - C1

* 1. **This is an anonymous survey. The PAST Foundation uses survey data to assess professional development needs in the transition to STEM TPBL education and the implementation of STEM Outdoor Innovation Labs. Completing this survey will give you the opportunity to share your insights and concerns anonymously.**

Your participation in this research is voluntary. You may choose not to participate. By checking the response below that states you agree to participate in this survey, you confirm that you have read and understand the PAST Foundation's Online Survey Anonymity Protocols provided for your review on the PAST Foundation website. You may review these protocols at any time on the PAST Foundation website (https://pastinnovationlab.org/irb-2014-01-006eth-growing-soil/).

❍ I agree to participate in this anonymous survey

2. **Have you integrated your curriculum for use in the outdoor lab?**

❍ Yes ❍ No

If yes, how did you integrate your curriculum for use in the outdoor lab?

_____

_____

3. **Have you collaborated on any projects with teachers in other content areas using the outdoor lab?**

❍ Yes ❍ No

4. **Have your students continued engagement with your SOIL lab after the construction/initial design stages?**

❍ Yes ❍ No

If yes, in what ways have they been engaged with the SOIL outdoor lab?

_____

_____

5. **Which methods of communication are most effective as you work to more fully implement your outdoor lab?**

❑ Email
❑ Formal communication (staff meetings, design team meetings)
❑ Informal communication (lunch, before or after school, in the hallway)
❑ Basecamp
❑ Social media
❑ Text message/Phone call

6. **What administrative support have you received for the outdoor lab?**

_____

_____

_____

_____

7. **What administrative support would you like to receive for the outdoor lab?**

_____

_____

_____

_____

8. **Have you established a community partnership?**

❍ Yes ❍ No

If yes, what are some projects/activities/events you have initiated with the community partner?

_____

_____

9. **If you are still working on establishing a community partnership what are some projects/activities/events would you like to have happen in the future with the community partner?**

_____

_____

_____

_____

10. **Are your community parters involved in your plan for sustainability?**

❍ Yes ❍ No

11. **What additional support or resources would be helpful to you in achieving your goals for this year?**

❑ Facilitating staff buy-in and collaboration
❑ Locating additional resources
❑ Getting information on conferences, events, and PD opportunities
❑ Curriculum design
❑ Strategic planning
❑ Networking with other schools
❑ Identifying community partners
❑ If other, please specify

_____

_____

Growing SOIL Cohort 1 Post-Planning Survey Bullet Point Report
December 6, 2014

This document provides an analysis of survey responses for the Growing SOIL Cohort 1 Post-planning survey launched via SurveyMethods© conducted on December 6, 2014. Ten Cohort 1 participants completed the survey.

This brief overview of the of the pre-planning survey questions provides a short summary of issues that the Growing SOIL Team members were asked to address in questions 2-10:

Qs 2-4 provide information on the status of work in progressing with increased use of the outdoor lab for the fall term 2014, including curriculum integration, teacher collaboration in developing content/projects, and student engagement with regard to the STEM Outdoor Innovation Lab (SOIL).

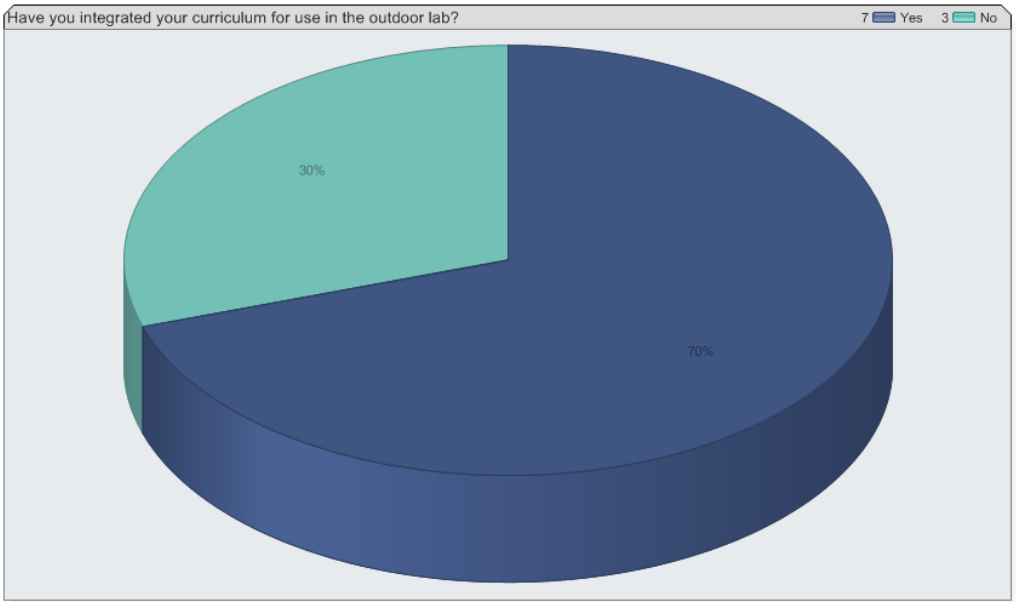
Q5 and 11 asked participants to rate methods of communication regarding work on building their outdoor lab program, as well as additional desired support and/or resources for meeting goals.

Qs 6-7 allowed participants to respond to open-ended questions about essential administrative support for the SOIL project.

Qs 8-10 centered on progress with establishing community partnerships, sustainability of community partnerships, and progress with planning and implementation of events/activities/projects with community partners.

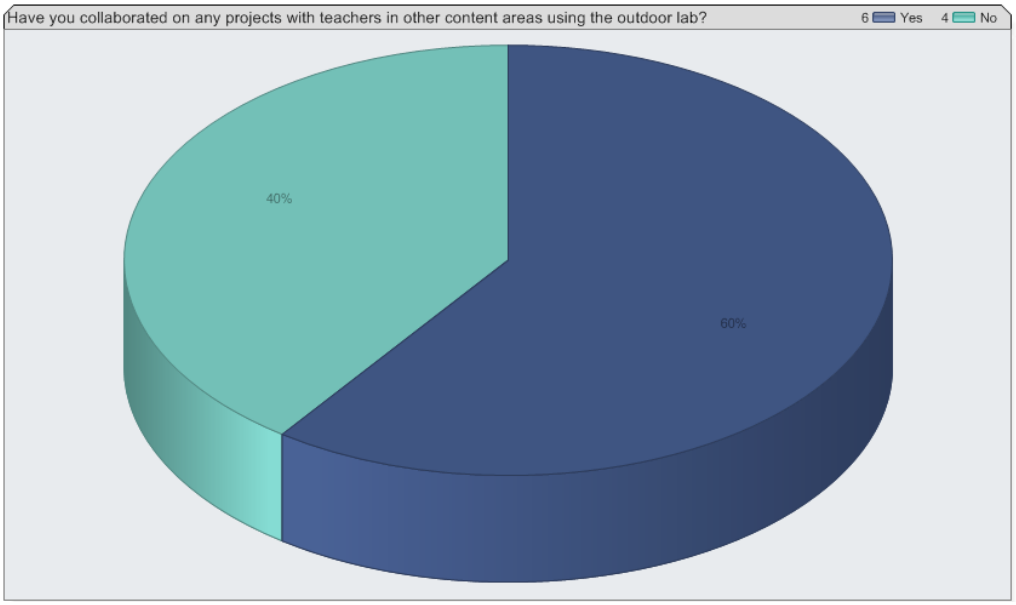
Question 1: Consent to participate in anonymous survey.

Question 2a: Have you integrated your curriculum for use in the outdoor lab? (n=10 respondents)

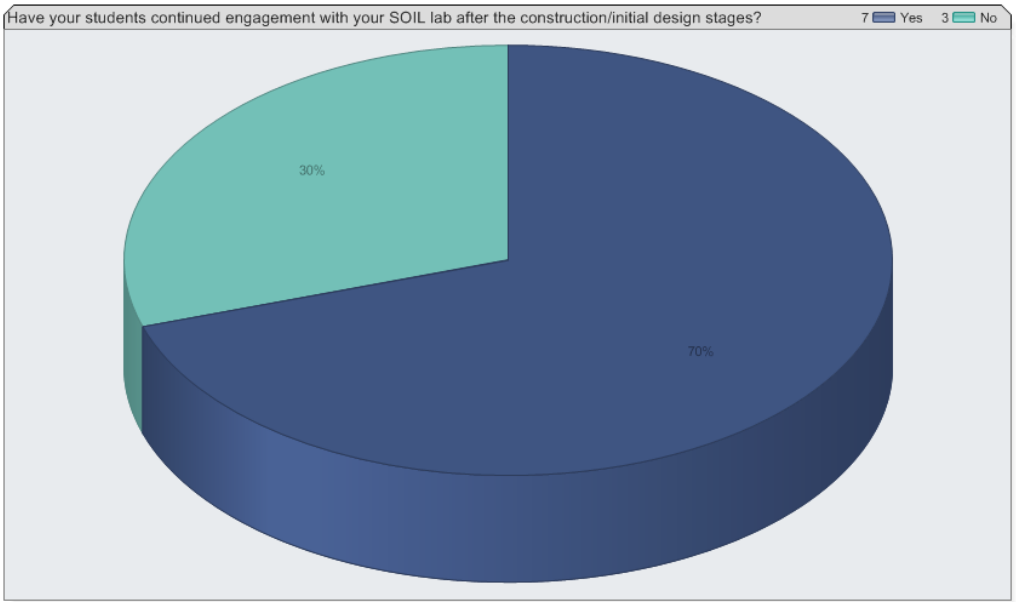


Q2b: How did you integrate your curriculum for use in the outdoor lab? (n=7 respondents)	Number of Responses* (n=14)
Science curriculum	5
Lab work	3
Design Challenge/Specific project	2
Student reflections	2
Skills lesson	1
Problem based learning	1
*Some participants expressed multiple ideas in their response.	

Question 3: Have you collaborated on any projects with teachers in other content areas using the outdoor lab? (n=10 respondents)

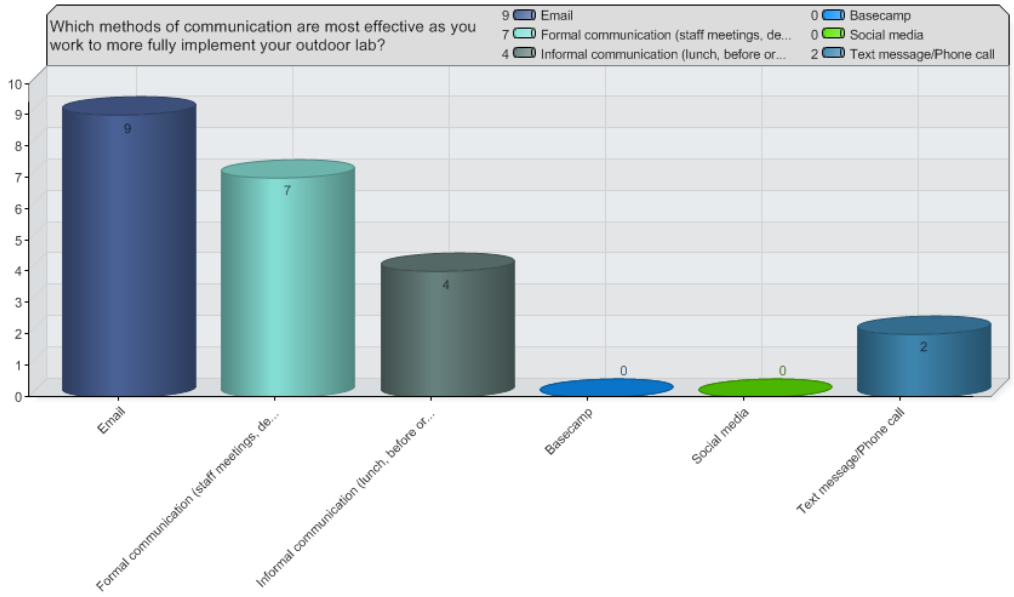


Question 4a: Have your students continued engagement with your SOIL lab after the construction/initial design stages? (n=10 respondents)



Q4b: What ways have they (students) been engaged with the SOIL outdoor lab? (n=8 respondents)	Number of Responses* (n=9)
Planting	2
Site Maintenance	2
Labs	1
Participated in Citizen Science	1
STEM/Outdoor Club	1
Curriculum integration	1
Student idea board	1
*Some participants expressed multiple ideas in their response.	

Question 5: Which methods of communication are most effective as you work to more fully implement your outdoor lab? (n=10 respondents*)



*Some participants expressed multiple ideas in their response; total responses n=22

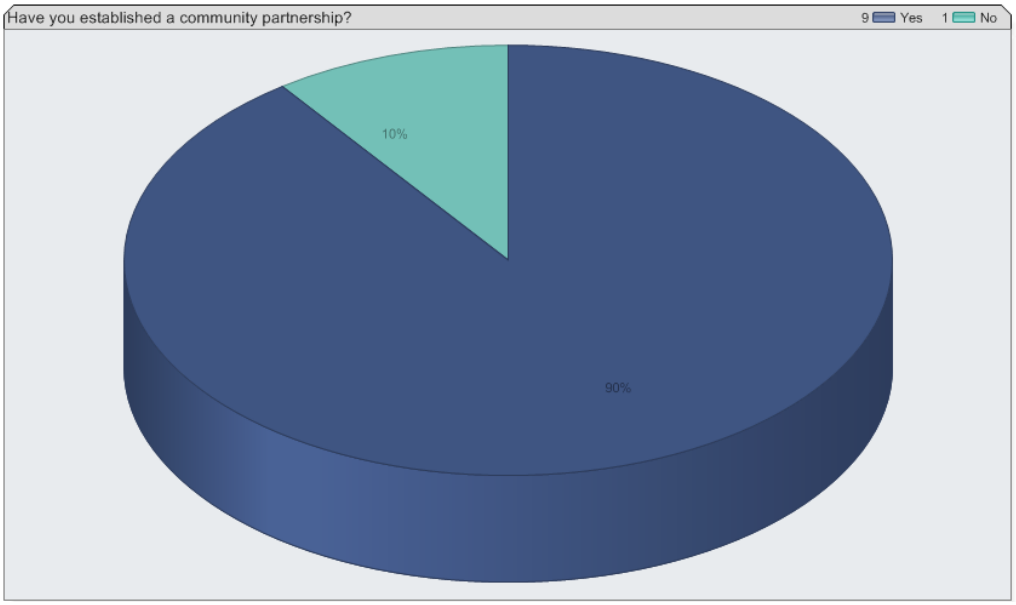
Question 6: What type of administrative support has occurred to support the outdoor lab? (n=9 respondents)

Q6: What type of administrative support has occurred to support the outdoor lab? **(n=9 respondents)**	**Number of Responses*** **(n=12)**
General support	4
Assistance with logistics and red tape	2
Time for/at meetings	2
Ordering supplies	2
Budget	1
Teacher autonomy	1
*Some participants expressed multiple ideas in their response.	

Question 7: What administrative support is essential to achieving goals for the outdoor lab? (n=10 respondents)

Q7: What administrative support is essential to achieving goals for the outdoor lab? (n=10 respondents)	Number of Responses* (n=11)
Collaboration	2
Community relations	2
Planning time	2
Time to work in lab	2
Curriculum design	1
PD	1
Protection of outdoor space	1
*Some participants expressed multiple ideas in their response.	

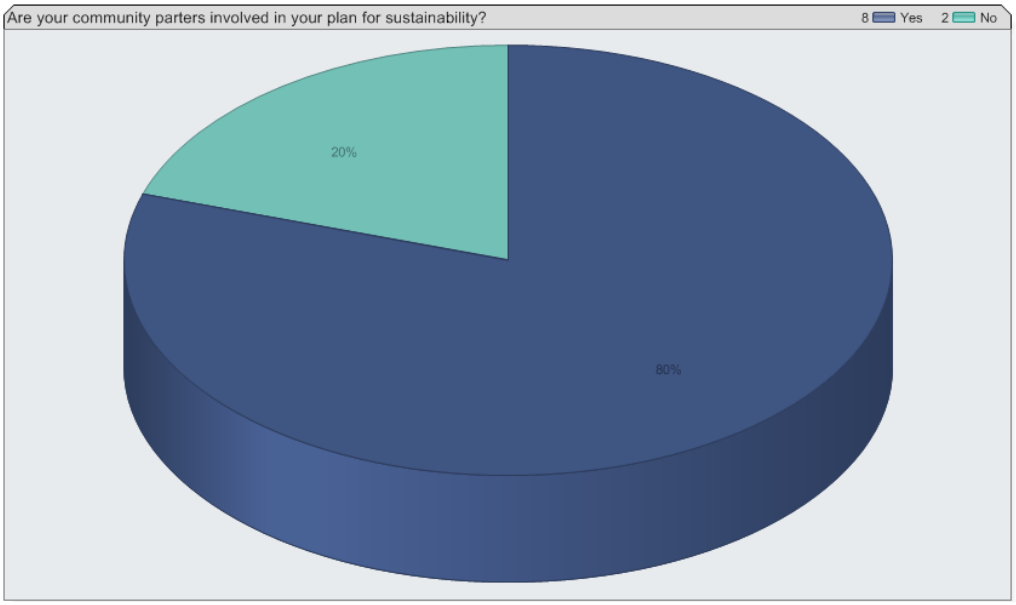
Question 8: Have you established a community partnership? (n=10 respondents)



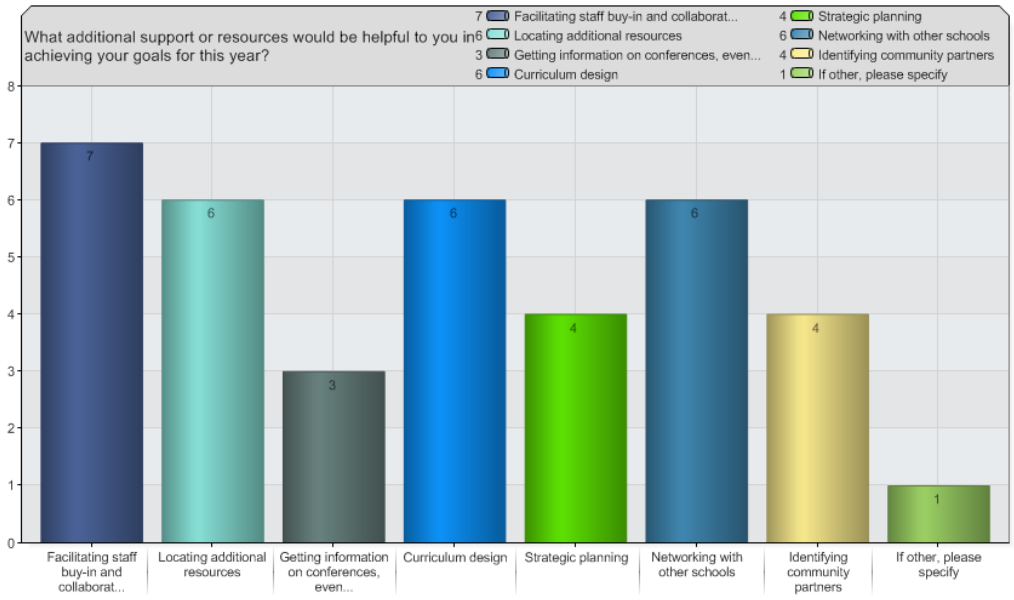
Question 9: If you are still working on establishing a community partnership what are some projects/activities/events you would like to have happen in the future with the community partner? (n=8 respondents)

Question 9: If you are still working on establishing community partnerships, what are some projects/activities/events you would like to have happen in the future with community partners? **(n=8 respondents)**	**Number of Responses*** **(n=5)**
Bridge Project	1
Local Environment Non-Profit	1
Local Farmer's Market	1
Metro Parks	1
Seed to Feed	1
*Some participants responded with 'N/A'	

Question 10: Are your community partners involved in your plan for sustainability? (n=10 respondents)



Question 11: What additional support or resources would be helpful to you in achieving your goals for this year? (n=10 respondents; total responses, n=37)



*Some participants expressed multiple ideas in their response.

If other, please specify (n=1)

For one participant, time constraints make it challenging to complete meaningful instructional units within an allocated class period.

Growing SOIL Cohort 2 Orientation Bullet Point Report
January 9-10, 2015

PF Staff: Beth Witte, Ketal Patel, Sheli Smith, Kat Deaner, Jim Dvorsky, Herb Broda, Mathew Broda, Meghen Matta
Attendees (by school district):

- Fairfield Union (6)
- Federal Hocking (1)
- Lancaster (4)
- Millersport (1)
- Walnut Township (1)

Community Involvement:

- For some, community is highly involved
  - However, there are a lack of community speakers
- History of school buildings are provided by staff (2)
  - Idea of forming a historical society
- Schools are treated as a hub for community
- Community supports the idea of Land Labs
- Looking to work with local news station for WeatherBug network and creating weather station for school
- Creating a memorial grove
- Worked in collaboration with Soil and Water Conservation at sites
- Encourage parent involvement, but keep it minimal

Student Engagement:

- Board of student trustees will speak on behalf of projects and events

Teacher Engagement:

- Working with art teacher with sculpture relocation
  - Could use sculptures from class to put into memorial grove
- Utilizing shop teacher for building ideas and structures on sites
  - Bird houses (2)
  - Pier leading to pond
  - Shelter House
  - Arboretum
  - Arched entryway
  - Rustic benches

Curriculum:

- The idea of green roofing
  - Could use it as a teachable zone
- Using cameras in certain locations for classroom learning
  - Fish hatchery
  - Cranberry bog
- Using natural resources located in the area for classroom instruction
  - Using native Ohio trees for curricular tie in
  - Tapping trees for maple syrup
- Using resources on site in classrooms to create lessons across grade levels
- Create an internship program for district
  - Interns can do most of the work for projects
- Make projects a senior graduation requirement

Safety Issues and Solutions:

- Vandalism
  - Could occur during events such as football games
- Buying cameras to increase security
- Using existing lights to cut down on crime

Challenges

- Issues with erosion
  - Districts collaborating to provide ideas on how to stop erosion
- Class times are too short for land labs (2)
  - Teacher has already tested how long it takes to get to creek for classes
  - Schools are on block scheduling (42 minutes per class)
- Wheelchair accessibility
  - Could possibly fill drainable ditch and create gravel walkway
- Issues with joint use for greenhouse with Vocational School
- Ponds are inaccessible
  - Looking to create pond in-between school
- Cross country course goes through area and is used by the community
  - Trail needs to be revamped
- Gathering community involvement with projects and structures
- Issues with maintenance department of sites
- Financial stability with school
  - Letting the community know that funds are allocated for a good cause and what it is being used for

- Pressure to spend money in land lab areas

Best Practices:

- Departments are utilizing outdoor resources
  - Science department uses pond for classes
- Vegetation system is already in place
  - Using native grasses for cultivation and pheasant habitat for long-term use

Resources:

- While overwhelmed with resources, recognizes that they have plenty to use
  - Where/What to focus on first?
  - What is currently being used?
- Have an outdoor space that has not been used, but would like to use it (2)
  - Some sites have wooden, frontal and pond areas to utilize
- Classroom location
  - Auto shop, cosmetology lab, planetarium near stream
  - Desk
  - Courtyard
    - Using it to minimize time
    - Easily accessible
    - Has greenhouse in it
  - Ponds are located on or near schools
- Flower beds are near sites (2)
- Forestry hub is located in wooden area, but needs to be repurposed before use

Overall:

- Sites are full of ideas in regards to utilizing outdoor spaces
  - Positive and excited to use these spaces
- Have plenty of resources to use
  - Looking within community for support towards projects
  - Helps keep the projects inexpensive
- Working collaboratively during brainstorming sessions and offering help to each other
- While thinking about curriculum structure, has yet to mention plan on how involved students and teachers will be in the process

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STEM Outdoor Innovation Labs Pre-Survey (Cohort 2)

* 1. **This is an anonymous survey. The PAST Foundation uses survey data to assess professional development needs in the transition to STEM TPBL education and the implementation of STEM Outdoor Innovation Labs. Completing this survey will give you the opportunity to share your insights and concerns anonymously.**

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- ❍ I agree to participate in this anonymous survey

2. **How long have you been an educator?**
   - ❍ Student teacher
   - ❍ Less than 1 year
   - ❍ 1 to 5 years
   - ❍ 6 to 10 years
   - ❍ 11-15 years
   - ❍ 16-20 years
   - ❍ More than 20 years
   - ❍ If other, please describe

   _____

3. **What content area(s) are you currently teaching?**
   - ❑ Math
   - ❑ Science
   - ❑ Language Arts
   - ❑ Foreign Language
   - ❑ Social Studies
   - ❑ All subjects
   - ❑ Music
   - ❑ Art
   - ❑ Physical Education
   - ❑ Special Education
   - ❑ If other, please describe

   _____

4. **How comfortable are you with reaching out to others in your building to engage them in the STEM Outdoor Innovation Labs project?**
   - ❍ I am very comfortable

- ❍ I am comfortable
- ❍ I am uncomfortable
- ❍ I am very uncomfortable
- ❍ I don't know yet how I feel about reaching out to others in my building
- ❍ I don't have any experience reaching out to others in my building
- ❍ If other, please describe

_____

5. **Do you have any experience with taking students outside the classroom? Please briefly list any outdoor learning activities that you have done with your students below.**

❍ Yes ❍ No

Types of outdoor activities:

_____

6. **How comfortable are you taking your students outside the classroom?**

- ❍ I am very comfortable
- ❍ I am comfortable
- ❍ I am uncomfortable
- ❍ I am very uncomfortable
- ❍ I don't know yet how I feel about taking my students outside the classroom
- ❍ If other, please describe

_____

7. **Please describe your top three goals for your students with STEM Outdoor Innovation Labs. [Please describe each in 1 to 5 sentences.]**

1 _____

2 _____

3 _____

8. **Please describe your top three goals for teachers in your school with STEM Outdoor Innovation Labs. [Please describe each in 1 to 5 sentences.]**

1 _____

2 _____

3 _____

9. **As part of the SOIL project team, please describe the top three ways that your STEM Outdoor Innovation Lab relates to the transdisciplinary problem based learning (TPBL) curriculum. [Please describe each in 1 to 5 sentences.]**

1 _____

2 _____

3 _____

10. **What do you anticipate to be the top three challenges in implementing STEM Outdoor Innovation Labs? [Please describe each in 1 to 5 sentences.]**

1 _____

2 _____

3 _____

11. **Do you have any experience with reaching out to community partners? Please briefly list experiences you have had with reaching out to community partners below.**

❍ Yes ❍ No

Types of outreach:

_____

12. **How comfortable are you with reaching out to and working with community partners?**

❍ I am very comfortable
❍ I am comfortable
❍ I am uncomfortable
❍ I am very uncomfortable
❍ I don't know yet how I feel about reaching out to community partners
❍ If other, please describe

_____

13. **What additional support or resources would be helpful to you in achieving your goals for this year?**

_____

_____

_____

_____

Growing SOIL Cohort 2 Pre-Planning Survey Bullet Point Report
January 9, 2015

This document provides a preliminary look at the survey responses for the SOIL Design Team survey. The survey was launched on January 9, 2015. A small number of SOIL Design Teams were unable to attend the meeting both days. Therefore, the survey link was posted on Basecamp on January 12 through January 14, 2015. A total of 13 individuals (86%) completed the survey of the15 team members that attended the two-day workshop.

This brief overview of the of the pre-planning survey questions provides a short summary of issues that Design Team respondents were asked to address in questions 2-13:

Qs 2-4 are profile questions to provide the implementation team with background information on the members of the Design Teams, including number of years in the field of education, current content areas, and their comfort level in reaching out to others within their building.

Q5 allowed teachers to respond to an open-ended question about their experience with outdoor learning activities.

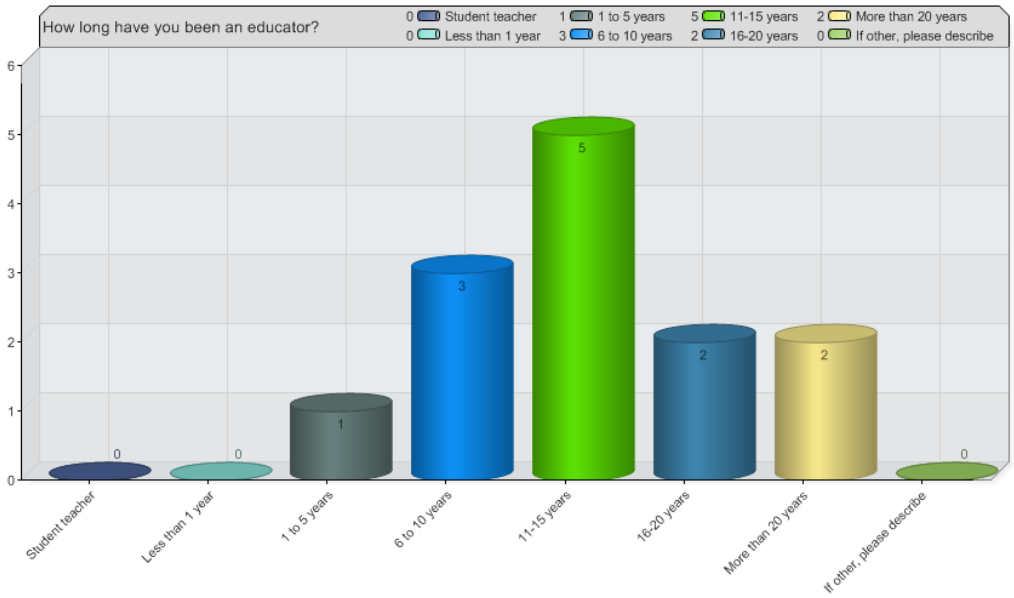
Q6 asked respondents about their comfort level with taking students out of the classroom.

Qs 7-10 are open-ended questions about specific goals, vision, and anticipated challenges for the STEM Outdoor Innovation Labs. (Q7 asked about goals for students, and Q8 asked about goals for teachers.) Q9 asked respondents to describe how their STEM Outdoor Innovation Lab relates to transdisciplinary problem based learning. Q10 asked respondents to list anticipated challenges in implementation.)

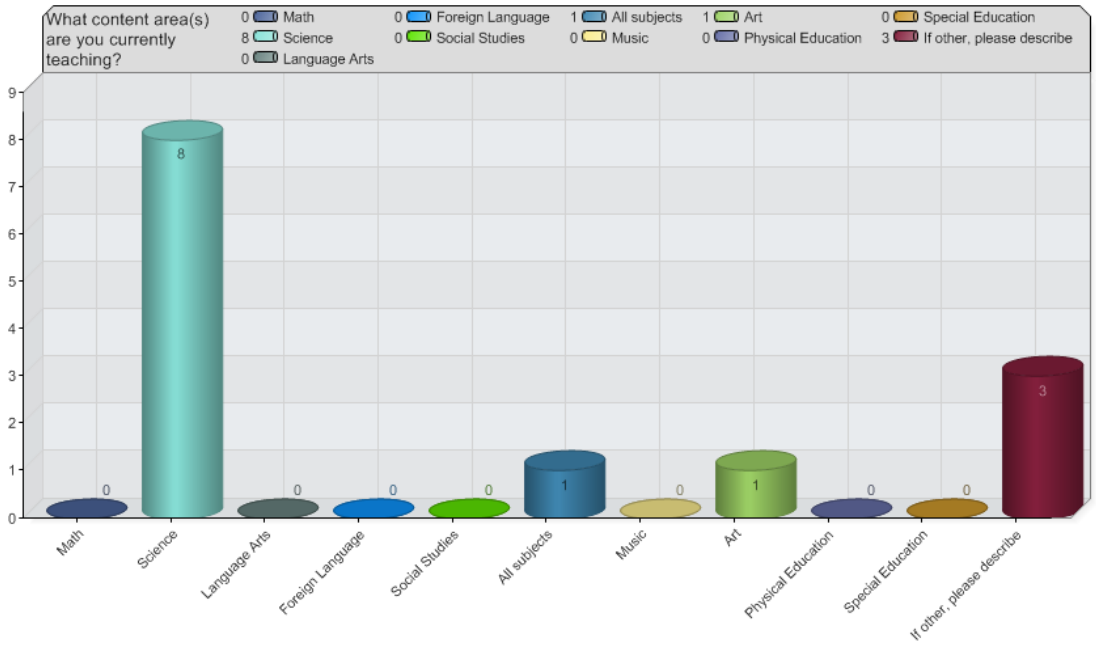
Qs 11-13 address support and resources essential to meeting goals by June 2015. Q11 asks respondents whether they have experience reaching out to community partners, and then asks them to list prior experiences in reaching out to the community. Q12 asks about comfort level with reaching out, and Q13 is an open-ended question concerning additional support or resources that might be helpful in meeting their goals.

Question 1: Consent to participate in anonymous survey.

Question 2: How long have you been an educator/in the education field? (n=13 respondents)

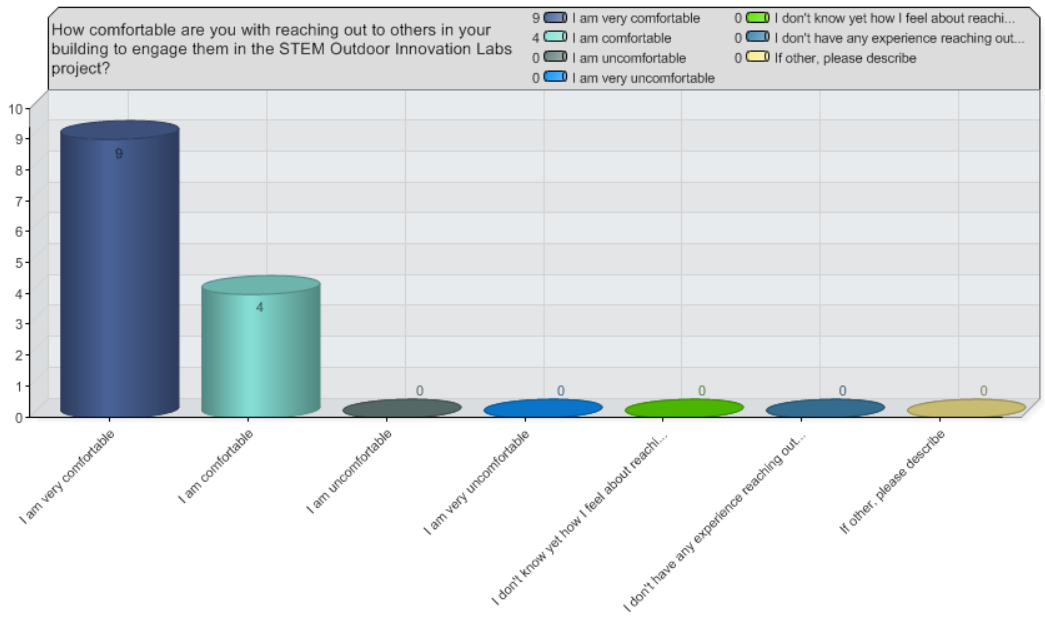


Question 3a: What content area(s) are you currently teaching? (n=13 respondents)

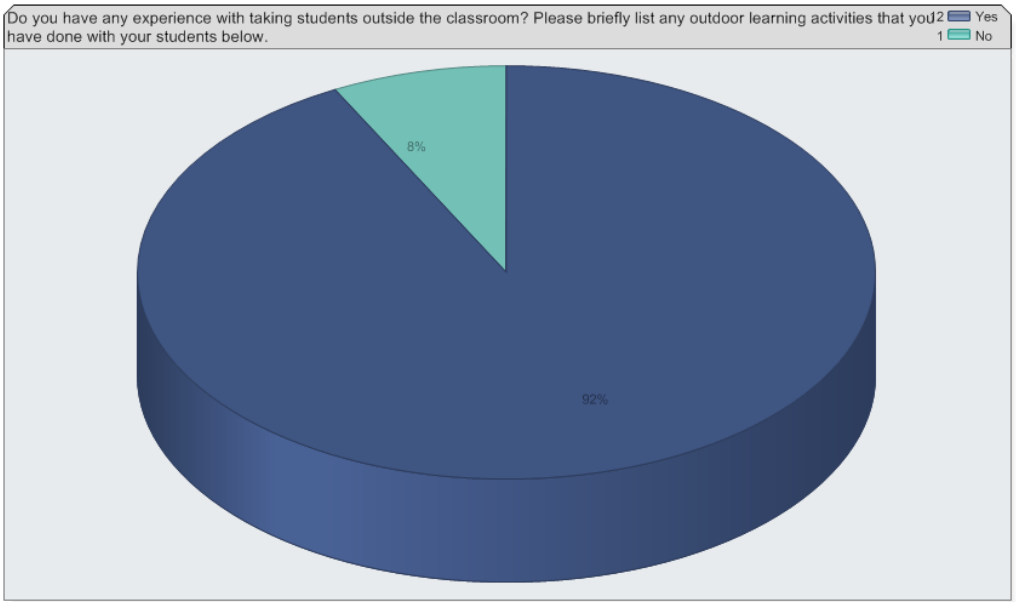


Q3b: If other, please describe (n=3)	Number of Responses (n=3)
Administration	2
Industrial technology/agriculture	1

Question 4: How comfortable are you with reaching out to others in your building to engage them in the STEM Outdoor Innovation Labs project? (n=13 respondents)

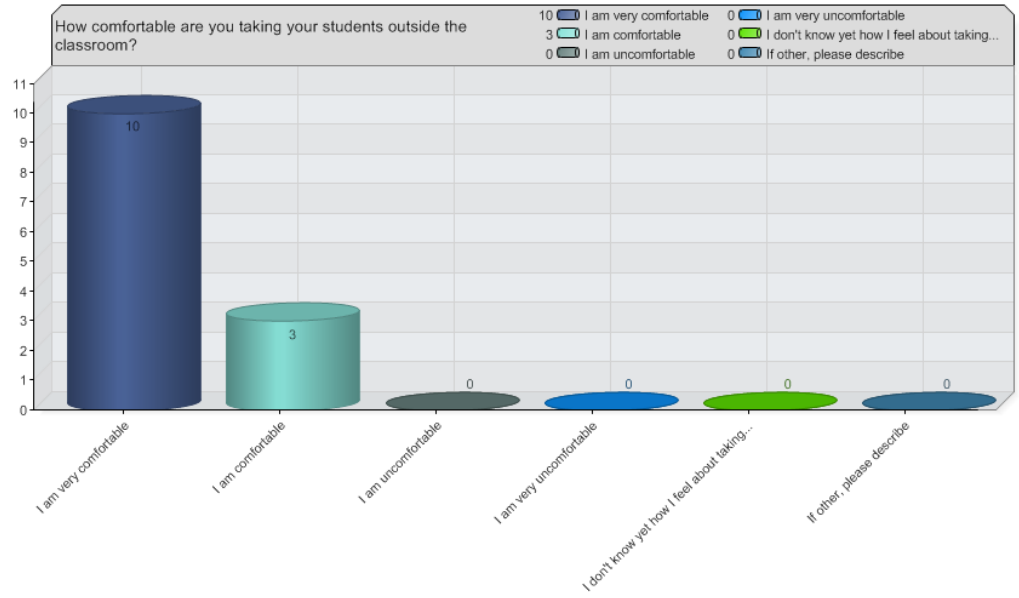


Question 5a: Do you have any experience with taking students outside the classroom? (n=13 respondents)



Q5b: Types of outdoor activities (n=12)	Number of Responses* (n=21)
Labs	6
Ecology	5
Change of Venue	3
Walks	2
Astronomy	1
Specimen Collection	1
Field Trips	1
Mapping	1
Scientific Typologies	1
*Some participants expressed multiple ideas in their response.	

Question 6: How comfortable are you taking your students outside the classroom? (n=13 respondents)



Question 7: Please describe your top three goals for your students with STEM Outdoor Innovation Labs. (Please describe in 1 to 5 sentences.) (n=13 respondents)

Q7: Please describe your top three goals for your students with STEM Outdoor Innovation Labs. (n=13)	**Number of Responses*** (n=32)
Student Engagement	8
Change of venue/ place	6
Real world application	5
Appreciation for the outdoors	3
Creating outdoor Leaning Experiences	2
Instruction methods	2
Critical thinking	1
Developing outdoor learning spaces	1
Experimentation	1
Inquiry based-learning	1
Problem-solving	1
Transdisciplinary learning	1
*Some participants expressed multiple ideas in their response.	

Question 8: Please describe your top three goals for teachers in your school with STEM Outdoor Innovation Labs. (Please describe each in 1 to 5 sentences.) (n=12 respondents)

Q8: Please describe your top three goals for teachers in your school with STEM Outdoor Innovation Labs. (n=12)	**Number of Responses*** (n=26)
Curriculum	4
Engagement	4
Use of outdoor space	4
Transdisciplinary learning	3
Comfort teaching outdoors	2
Create outdoor learning opportunities	2
Teacher collaboration	2
Interest in the outdoors	1
Fun for teachers and students	1
Problem Based Learning	1
Student feedback	1
Real world application	1
*Some participants expressed multiple ideas in their response.	

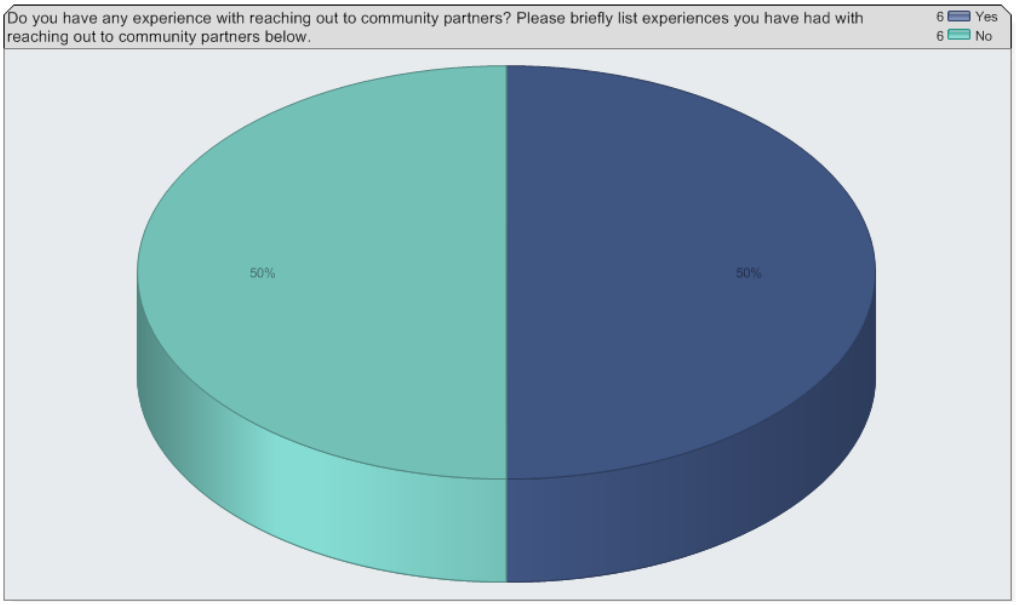
Question 9: As part of the SOIL project team, please describe the top three ways that your STEM Outdoor Innovation Lab relates to the transdisciplinary problem based learning (TPBL) curriculum. (Please describe each in 1 to 5 sentences.) (n=11 respondents)

Q9: As part of the SOIL project team, please describe the top three ways that your STEM Outdoor Innovation Lab relates to the transdisciplinary problem based learning (TPBL) curriculum. (n=11)	**Number of Responses*** (n=27)
Problem Based Learning	5
Transdisciplinary education	4
Real world application	3
Teacher collaboration	3
Create outdoor learning space	2
Science curriculum	2
Common core	1
Opens links to community	1
Flexibility	1
Stimulating student growth	1
Student collaboration	1
Student engagement	1
Teacher buy-in	1
Teachers see “The Big Picture”	1
*Some participants expressed multiple ideas in their response.	

Question 10: What do you anticipate to be the top three challenges in implementing STEM Outdoor Innovation Labs?
(Please describe each in 1 to 5 sentences.) (n= 12 respondents)

Q10: What do you anticipate to be the top three challenges in implementing STEM Outdoor Innovation Labs? **(n=12)**	**Number of Responses*** **(n=30)**
Time management	9
Teacher buy-in	6
Planning time	2
Teacher collaboration	2
Accessibility	1
Connecting to curriculum	1
Cost	1
Distance management	1
Effective use	1
Logistics	1
Maintenance	1
Materials	1
Policy	1
Project focus	1
Transdisciplinary use	1
*Some participants expressed multiple ideas in their response.	

Question 11a: Do you have any experience with reaching out to community partners? (n=12 respondents)

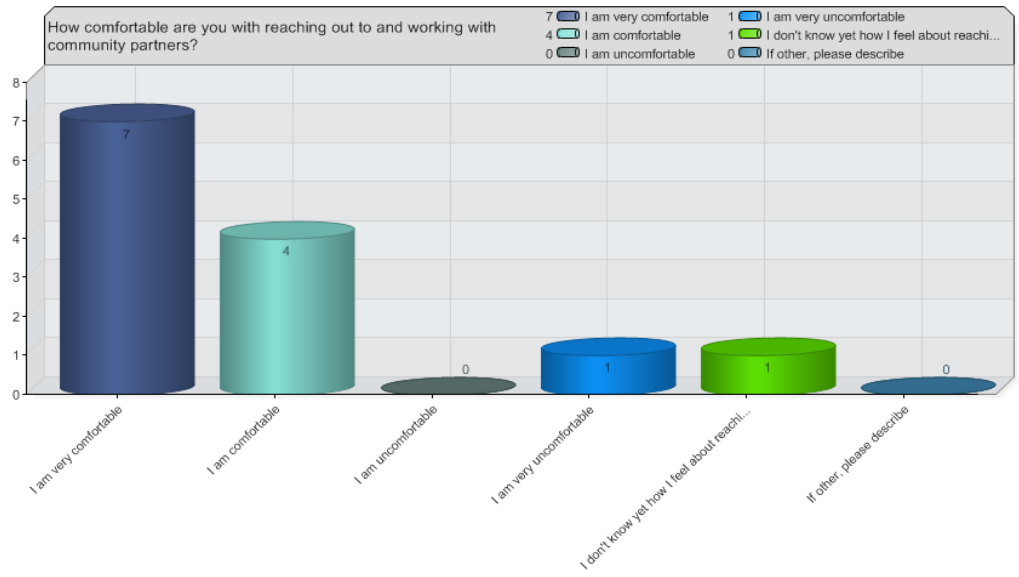


Question 11b: Please briefly list experiences you have had with reach out to community partners below (n=6 respondents)

Participants listed specific experiences with community partnership including:

- Borrowing equipment
- College partnerships (2)
- Communication with the Soil and Water Conservation Department
- Construction partnerships
- Local businesses which provided materials and staff incentives
- Local food panties
- Working with parents

Question 12: How comfortable are you with reaching out to and working with community partners? (n=13 respondents)



Question 13: What additional support would be helpful to you in achieving your goals for this year? (n=7 respondents)

Participants listed additional areas for support including:

- Additional project team work time
- Catalog/website of supplies
- Guidance (throughout process)
- Ideas for outdoor learning
- Strategies for attaining more funding
- More professional development regarding use of STEM Outdoor Learning Labs