COPEPOD

“Capitalizing On Partnerships to Evaluate Program Outcomes, Dang!”
-Jennifer Basham, Portland State University/Friends of Outdoor School;
-Dan Prince, MESD Outdoor School
Launched in 1966
7,000 6th graders annually
7 Counties
12 Public School Districts
24 Private and Charter Schools
3 day, 4 day and 6 day programs
1,200 high school student leaders annually
Core Mission—Program Goals

1. Authentic, hands-on science instruction using best practice.
2. Building fully-inclusive community among diversity.
3. Mentor model builds leadership skills.

Conservation ethic pervades operations and programming.
How do we know if we are achieving our goals for high school leadership?

- What skills are high school students gaining from participating?
- How can we improve outcomes for student leaders in ways that transfer to their lives as students and young adults?
Evaluation—High School Leadership

- Staff evaluations
- Survey of HS student leaders
  - National counseling standards
  - 40 developmental assets
  - College and career-related essential skills
Outcomes--High School Leadership

• Some outcomes after one week of participation:
  ◦ 89% say ODS made them more likely to spend time in the outdoors
Outcomes--High School Leadership

Some outcomes after one week of participation:

- ODS had positive influence on students’:
  - Confidence: 92%
  - Public Speaking: 87%
  - Self-advocacy: 83%
  - Desire to be a good student: 68%
  - Healthy lifestyle choices: 71%
  - Interest in other opportunities to work with kids: 87%
  - Interest in other volunteer opportunities: 85%
  - Interest in math and science: 63%
How do we know if we are achieving our goals for community?

- How well are students gaining problem-solving and teamwork skills?
- How well are students gaining an affinity for nature?
Evaluation—Social Learning

- Teacher Evaluations
- ACA Outcomes Battery
  - Teamwork
  - Problem-solving confidence
  - Affinity for nature
- Results demonstrate positive impact in all these areas
- What about SEL?
SEL-Social Emotional Learning

- Self-awareness
- Self-management
- Social awareness
- Relationship skills
- Responsible decision-making

See casel.org for more details
How do we know if we are achieving our goals for field study?

- What is the impact of our instruction on student growth and learning?
- What are the most effective practices in engaging students in science?
- What about equity?
Assessments Imbedded in Field Study Activities (Qualitative)

Teacher Evaluations (Qualitative)

How do we get good quantitative assessment data that aligns with stakeholder priorities?
Evaluation—Science Instruction

- Portland Metro STEM Partnership Common Measures Assessments
  - Application of Conceptual Knowledge
  - Academic Identity and Motivational Resilience

Question: Where does your programming align with these STEM outcomes?
Barriers and Solutions

- Lack of time
- Lack of expertise
- Lack of access to good data
- Need for clarity on outcomes

- Built relationships
- Participated in regional/state initiatives
- Jumped on opportunities
- Clarified outcomes with the help of partners
- Go to the meeting. Just go. Be there.
STEM Common Measures Project

- Implementation of pre- and post-surveys to measure Academic Identity and Motivational Resilience
- Professional Development for ODS Field Instructors and Site Supervisors
- Develop Assessments for Application of Conceptual Knowledge
STEM Common Measures Project

- Delivered assessment tasks during fall ODS session.
- Plants Example:
  - “Design a plant to survive in the crack of a city sidewalk. Explain some challenges the plant may face in order to survive in this location. How is the plant adapted to survive in this location?”
STEM Common Measures Project

- Some things we’ve learned:
  - The work is hard.
  - Logistics of assessment delivery affects students’ work quality.
  - PMSP met our staff where they were and moved them forward in their skills and knowledge.
  - We will have some excellent data on assessment for learning.
  - Revisions were critical.
Draw and describe the creature that you saw, including 4 adaptations that help it get food, water, shelter, and protect itself in this unfamiliar habitat. Explain why you chose those adaptations.

- its tail points in the direction of water
- colored to blend in
- big ears so they can hear predators coming
- can smell food up to 10 miles away
(Very) Initial Results

- Academic Identity and Motivational Resilience

**FALL 2014: Student Surveys**

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<th>ANSWER RESPONSE SCALE</th>
<th>Not at all true</th>
<th>A little bit true</th>
<th>Somewhat true</th>
<th>Fairly true</th>
<th>Totally true</th>
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<td>3</td>
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<table>
<thead>
<tr>
<th>Science Sub-Scales*</th>
<th>Identity*</th>
<th>Relatedness*</th>
<th>Competence*</th>
<th>Autonomy*</th>
<th>Purpose*</th>
<th>Academic Engagement</th>
<th>Constructive Coping</th>
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<td>Pre-ODS Survey: Average</td>
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<td>3.9</td>
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<td>Post-ODS Survey: Average</td>
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<td>4.1</td>
<td>3.6</td>
<td>4.2</td>
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<td>3.9</td>
</tr>
</tbody>
</table>

*These sub-scales are based on a small number of items so interpretation of the averages should proceed with caution.
STEM Common Measures Project

- **Next steps:**
  - Continue pre-post survey to secure representative sample.
  - Implement revised assessment questions.
  - Score assessment questions early summer.
  - Use results to improve instruction.
  - Build sustainable assessment system.
  - Rinse and repeat.
STEM Common Measures Project

- Thanks to:
  - The Gray Family Foundation
  - David and Christine Vernier/OCF
  - PMSP for support, guidance, and partnership.
  - PSU
PSU and Outdoor School Research

Research Project background:

◦ Timing was right—ODE data; Cradle to Career initiatives; OEIB strategic investments; researcher was on board.

◦ Built Partnerships (Portland State University, FOODS, Gray Family Foundation, Goodman Foundation)
Planning Process

- What are key Oregon education priorities or areas of focus?
- Who are key influencers?
- How do we align?
What are key Oregon education priorities?

- Focus on the Achievement/Opportunity Gap
- Focus on Graduation Rates
- Focus on STEM Learning
- Oregon Education Investment Board Education Funding Priorities
Who are key influencers?

- Oregon Education Investment Board
- Oregon Department of Education
- Portland State University-
  - Graduate School of Education Research with ODE data.
- School Districts
- Portland Metro STEM Partnership
How do we align with key priorities?

- Asked our advisory board what is important to the School Districts? What do they care about?
  - Strategic Investments with OEIB
    - Achievement
    - Attendance
    - Behavior
Research Questions

- Does the Outdoor School program have an impact on students’ academic achievement? If so, where are the largest gains?

- Does the impact of Outdoor School differ depending on a student’s demographic characteristics? If so, how?
Existing Data from ODS Enrollment dating back to 2006-2007
  ◦ Class lists, Teachers, School
Existing Data from School Districts
  ◦ Test Scores, Attendance, Incidents of behavior
MESD Technology Staff merged and de-identified students from the two data sets.
Analysis

• Looking for correlations between attendance at Outdoor School and:
  • Achievement
  • Attendance
  • Behavior
Where we are at?

- Currently analyzing data from four school districts
  - David Douglas School District
  - Reynolds School District
  - Parkrose School District
  - Portland Public Schools
Some Learnings

- Takes a long time
- ODE data was not “operationalized” yet
- Data is not always consistent across schools, districts or years
- Analysis seems to create more questions than answers
- It’s fun!
Thanks to...

- Jennifer Basham
- The Gray Family Foundation
- Goodman Foundation
- Portland State University
- Friends of Outdoor School
- David Douglas, Parkrose, Portland and Reynolds School Districts
- MESD Technology Services