



ENVIRONMENTAL EDUCATION RESEARCH
& IMPLEMENTATION SUPPORT EXPERTS

Steven M. Braun, Ph.D.
Environmental Science and Education Consultant
steve@eerise.org
(971) 227-6759

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Dear Co-Chairs McClain and Fredrick and members of the Ways and Means Subcommittee on Education,

My name is Dr. Steven Braun. I am a researcher working in cooperation with the statewide Outdoor School program and Gray Family Foundation. One of the significant questions we are faced with in terms of quality and students' reaching the desired outcomes of Measure 99 and Oregon Senate Bill 439 (OR SB439) is the question of duration of programing; more simply put, why is a weeklong program better?

This very question has been investigated in national and international contexts. One of the significant findings in a 2014 analysis of 11 years of research in environmental and outdoor education revealed three most commonly identified factors which empirically demonstrate positive youth outcomes include 'dosage' (the frequency or length of time of a program), along with investigation and experiential factors.¹ More specific to outdoor school, a 2008 study of 4th -7th grade students compared effects of a 3-day vs 5-day residential environmental education program held in The Great Smokey Mountains National Park.² The researchers found the 5-day program produced significantly stronger gains with the following outcomes:

- ! students' interest in learning and discovery (or to use language from OR SB439: *enthusiasm*).
- ! students' environmental stewardship, which involves attitudes and intentions (OR SB439 language: *the importance of this state's environmental and natural resources*).
- ! students' knowledge and awareness of the National Park (OR SB439 language: *the role of timber, agriculture and natural resources in the economy of this state; the interrelationship of nature, natural resources, economic development and career opportunities* – among many other outcomes such as science and social studies content which are listed in the Senate Bill).

Moreover, three months after this experience, some of these differences were still pronounced; specifically students' knowledge and awareness were much higher for those students that attended the 5-day program.

Here in Oregon, two recent research/evaluation projects strongly suggest that longer outdoor school programming results in stronger or more pronounced outcomes for 5th and 6th grade students. In a study of environmental education programs in the Portland metro region, which included outdoor school programs,³ the length of a program was significantly associated with the following outcomes:

- ! students' locus of control (OR SB439 language: *self-sufficiency and leadership skills*).
- ! students' environmentally responsible behavior (OR SB439 language: *the importance of this state's environmental and natural resources*).

Additionally, the percentage of time these programs spent outside was also associated with (and predictive of) an additional outcome:

- ! students' environmental sensitivity and awareness (OR SB439 language: *the role of timber, agriculture and natural resources in the economy of this state; the interrelationship of nature, natural resources, economic development and career opportunities* – among many other outcomes such as science and social studies content which are listed in the Senate Bill).

In other words, the longer a program and the more time a program spent outside, the more pronounced the positive effects on student attitudes.

In an ongoing study of Oregon outdoor schools,⁴ which is specifically informed by OR SB 439 among other things, there is strong evidence of the influence of outdoor school on student outcomes. These outcomes included:

- ! Oregon Department of Education Essential Skills (critical thinking, teamwork).
- ! 21st Century Skills (problem-solving, collaboration).
- ! Positive school behaviors (discipline and engagement).
- ! Additional legislative requirements (behavior, engagement, performance).
- ! Student learning: overall and specific to environment.
- ! Social Emotional Learning Core Competencies (empathy, responsibility).

All of these outcomes are identified in OR SB-439. Moreover they are well-understood to positively affect (or correlate) with graduation rates.

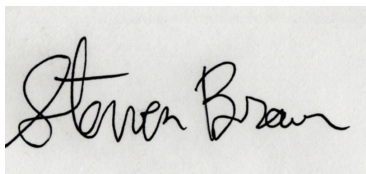
There were 680 students who participated in the study from across 17 different schools that attended five different outdoor schools of differing length. We compared student results from the longer 5 and 6-day program(s) with the shorter 3-day program(s). We found stronger gains, or more pronounced results, with several outcomes that were explicitly identified in OR SB439. These outcomes included:

- ! Student learning specific to the environment (i.e. academic achievement).
- ! 21st Century Skills: collaboration and communication.
- ! Positive school behaviors (i.e. discipline and engagement).

I expect further conclusive evidence on the question of programming length within the year. We are currently evaluating – surveys are being administered this spring – the outcomes of nearly 45 outdoor programs of different length of time throughout the state. I expect over 10,000 students and 1,000 teachers from nearly 100 school districts to participate in the program evaluation this spring.

Does a 2 or 3-day outdoor school program yield the same outcomes as a 5 or 6-day program? Thus far, results strongly suggest no – a shorter outdoor school program is not as effective. A longer program produces stronger, and possibly longer lasting outcomes. The body of knowledge around outdoor education, including our early findings here in Oregon, provide a strong case for weeklong programming. I hope the summary of these studies and citations below is helpful and assists the committee in their determinations. I would be very happy to further answer or clarify any questions you may have.

Respectfully,



Steven M. Braun, PhD.

Citations:

1 Marc J. Stern, Robert B. Powell & Dawn Hill (2014) “Environmental education program evaluation in the new millennium: what do we measure and what have we learned?” *Environmental Education Research*, 20:5, 581-611

2 Stern, M. J., R. B. Powell, and N. M. Ardoin. (2008) “What Difference Does It Make? Assessing Outcomes from Participation in a Residential Environmental Education Program.” *Journal of Environmental Education* 39 (4): 31–43

3 Braun, Steven Matthew (2015) "Localized Ecological and Educational Effects of Environmental Service-Learning in Portland, Oregon" Dissertations and Theses. Paper 2332

4 Braun, S.M. (2019) “Outdoor School for All: Diverse Programming and Outcomes in Oregon: 2018 Pilot Study Evaluation. Portland, Oregon.” The Gray Family Foundation