Out Here: A Short Film about Outdoor School in Oregon

by Vy Nguyen

A THESIS

submitted to

Oregon State University

Honors College

in partial fulfillment of the requirements for the degree of

Honors Baccalaureate Science in BioHealth Sciences (Honors Scholar)

Presented May 23, 2019 Commencement June 2019

AN ABSTRACT OF THE THESIS OF

Vy Nguyen for the degree of <u>Honors Baccalaureate of Science in BioHealth Sciences</u> presented on May 23, 2019. Title: Out Here: A Short Film about Outdoor School in Oregon.

Abstract approved:		
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In this thesis, I created a short film to immerse and connect, or reconnect, Oregonians to Outdoor School and its impact on youth. Outdoor School (ODS) is an experiential outdoor education program for 5th and 6th graders, that recently became funded statewide in Oregon through voters' approval of Measure 99. Participants' interviews and engagement in activities were filmed during a 6-day, 5-night Outdoor School program in Fall 2018. Increasing stakeholder knowledge of the Outdoor School program may help Oregonians make more informed decisions regarding Outdoor School.

Key Words: Outdoor School, short film, experiential education, outdoor education, Measure 99

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<u>Honors Baccalaureate of Science in BioHealth Sciences</u> project of Vy Nguyen presented on May 23, 2019.
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Toni Doolen, Dean, Oregon State University Honors College
I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.
Vy Nguyen, Author

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Introduction

Outdoor School (ODS), an experiential, place-based outdoor education program for 5th and 6th grade school students, has been a part of education in Oregon for more than 50 years. In 2015, Oregon legislature passed a bill (SB. 439, 2015) initiating the first statewide outdoor school program (Keyes, 2017, p. 2), and in the subsequent year, voters passed Ballot Measure 99 (Oregon Secretary of State, 2016) to provide permanent state funding for every 5th and 6th grade student in Oregon to attend ODS. In the first year of funding, over 35,000 students attended ODS, and almost 20% of those students were the first from their schools (Oregon State University Extension Service, 2018c, p.1). The recent legislative events and consequent increase in student participation across the state called for inquiry and communication of what current Outdoor School programs and their impacts are, to those impacted by or interested in the program.

A review of the literature suggested that students who attend ODS or similar outdoor, place-based, and experiential learning programs show increased academic achievement, personal, social and career development, as well as civic leadership (Becker, Lauterback, Spengler, Dettweiler, & Mess, 2017; Braun, 2019; Rickenson, Dillon, Teamey, Morris, Choi, Sanders, Benefield, 2004; Wheeler & Thumlert, 2007). Although written reports on the impact of ODS and similar programs existed, minimal audio-visual media of the activities themselves were available. As Outdoor School grows its statewide presence, audio-visual content can be beneficial to both the assessment and communication of the impact of Outdoor School programs in Oregon and beyond. Audio-visuals provide extensive, immersive, and accessible data (Heath, Hindmarsh & Luff, 2010), increasing both information and understanding gained.

In this thesis project, I created a short film incorporating exemplar interviews and activity recordings, to engage and inform viewers of Outdoor School and its impact.

Filming occurred in Fall 2018 at a 6-day, 5-night Outdoor School program located in the upper Willamette Valley. In this paper, I discussed the literature that informed the video, the process of making the video, and the outcomes of the video.

This thesis project focused on an academic program that thousands of Oregon students attend annually. The idea, however, sprouted from my personal experiences. I participated in Outdoor School as a 6th grade student and as a high school volunteer; these experiences were profoundly impactful on my development as a student, leader, and community member. Due to my own powerful experiences and learning those of others, such as through the "OutdoorStories" Project (Friends of Outdoor School, 2016), I became an advocate for Outdoor School, and its potential to impact every child in Oregon. My intent in creating a mini documentary as my undergraduate thesis project, was to provide a venue whereby people can discover ODS' impact for themselves.

Literature Review

In this literature review, I provided an overview of Outdoor School, its history in Oregon, its current status, and benefits supported by empirical evidence. Briefly, Outdoor School is an outdoor experiential education program with extensive history, rapid growth, and a wide array of research-supported positive impacts in Oregon.

Outdoor School in Oregon

Outdoor School programs are described in Oregon Senate Bill 439 as "a six-day, residential, hands-on educational experience, or an equivalent outdoor educational experience that reflects local community needs and contexts, featuring field study

opportunities" for topics including water, soil, plants and animals, the importance of Oregon's environment and natural resources, and the relationship between Oregon's natural resources and economic development (SB. 439, 2015). In addition, the bill stated that these programs should equitably help students meet standards, "develop leadership, critical thinking and decision-making skills," and "learn about the interdependence of urban and rural areas" (SB. 439, 2015). Oregon State University (OSU) Extension Service, charged in the bill to support Outdoor School programs, identified five unifying principles of ODS: high quality curriculum, purposeful and sequential experiences, engaging teaching methodology, social and emotional learning, and a safe and inclusive environment (OSU Extension Service, 2018b, p.1). I used these principles to guide and frame my video.

History

The information in this section is from "Outdoor School - A History 1966-1996" (Multnomah Education Service District, n.d.). In spring of 1957, the first Outdoor School program occurred in Oregon. Led by Dr. Irene Hollenbeck from Southern Oregon College, and supported by the U.S. Soil Conservation Service, U.S. Forest Service and Oregon Game Commission, "23 fifth and sixth grade children spent 5 days living and learning in the out-of-doors." The following year, Margaret Milliken from OSU and Austin Hamer from Oregon Game Commission organized the second week-long Outdoor School program for 6th graders, with support from the same groups in addition to the state government. Milliken then taught and trained students at OSU to facilitate these programs. From this point, Outdoor School programs began to be established statewide.

Current Status

In 2017-2018, the first academic year in which public funding for Outdoor School was administered by OSU Extension Service Service, 128 school districts spanning all 36 counties were funded. As a result, 30,739 students attended ODS that year, 75% of those eligible, for a total of 115,131 days students got outside. Of those, 82 new schools and 7,137 new students attended ODS for the first time (OSU Extension Service, 2018a, p.6; OSU Extension Service, 2018c, p.1).

For their 2018-2019 annual report on Outdoor School, OSU Extension Service asked schools to rate the importance of the topics listed in Senate Bill 439 in the Outdoor School programs they participated in, and received results from more than 300 schools. On a scale of 1-5 with increasing significance, almost 85% of schools ranked "Student Leadership, Critical Thinking, and Decision-Making" as 4 or 5, more than 85% did for soil, water, plants and animals, 88% for Oregon's environment and natural resources, and 99% for science (OSU Extension Service, 2018a, p.14). Results from Oregon Environmental Literacy Program's pilot study of Outdoor School programs and common measures also indicated legislative requirements are being met (Braun, 2019, p. 22-29).

For the following year, OSU Extension Service aimed to survey Outdoor School providers, to both establish a list of providers and assess common measures, as well as work with them to engage in professional development, including "ongoing diversity, equity, and inclusion training for outdoor school educators" (OSU Extension Service, 2018a, p. 18). OSU Extension also focused on assessing how many students may attend Outdoor School in the near future, which schools did not attend and how to conduct outreach to them, the role and training of high school students as volunteers, as well as

creating an "evaluation tool" and workshops for educators on how to "responsibly infuse indigenous studies concepts into their curriculum" (OSU Extension Service, 2018a, p. 16). In addition, the study on common measures continues, with "full, statewide program evaluation" occurring presently in spring 2019, reports to follow in the winter (Braun, 2019, p. 37).

Benefits

Research on Outdoor School and similar programs suggested that they provide youth with a multitude of benefits, including academic, personal, and social. In the recent pilot study of Outdoor School programs in Oregon and their impact conducted by the Oregon Environmental Literacy Program, "initial results show significant positive gains and strong influence on many educational outcomes" (Braun, 2019, p. 3). Academically, students learned, grew their "interest and motivation to learn," and gained "21st Century Skills" including critical thinking and communication" (Braun, 2019, p. 3, 13). ODS participants developed purpose, identity, self-efficacy, connection to place and environmental awareness. Socially, they gained respect for empathy and diversity, and desire to engage in environmental stewardship. Furthermore, researchers found that youth "who need substantial academic and behavioral supports were positively impacted by Outdoor School," as 84% of teachers stated that Outdoor School has positive impact on students needing behavioral support, and 88% on academic support (Braun, 2019, p. 20).

On behalf of the state of Washington, Wheeler and Thumlert (2007) completed a literature review of more than 75 articles on outdoor education programs' impacts. The researchers suggested that environmental education can help meet student outcomes, including academic achievement, career development, "self-esteem, engagement and

motivation," as well as "civic responsibility and service-learning" (Wheeler & Thumlert, 2007, p. ii-iii). Academically, they found "strong evidence" that programs like Outdoor School increase math and science achievement, as well as "some evidence" for social studies achievement. In terms of career development, they established that environmental education can bring awareness to related careers, and that people in those careers often considered those programs pivotal to choosing their careers. Wheeler and Thumlert observed that evidence exists for the positive impact of environmental education programs on "self-esteem, engagement, and motivation," and that this impact may stem from the experiential component of such programs. The researchers also found evidence that environmental education programs can expand students' civic engagement, but that more research needs to be done to better understand this relationship. The Oregon Outdoor Education Coalition created a brief based on this literature review called "Empirical Evidence Supporting the Benefits of Outdoor School and Experiential Learning Programs" (Gray Family Foundation, 2015). This brief and studies elsewhere also suggested that outdoor education provides positive impacts including academic achievement and social skills growth (Becker et al., 2017, p. 9, 12-13; Gray Family Foundation, 2015, p. 2, 9, 16; Rickenson et al., 2004, p. 5-7, 20-22, 26-29).

Methodology

Study Design

In summer 2018 I submitted my proposal to OSU's Institutional Review Board.

The proposal included a compilation of interview questions used for the film (Appendix A). The interview questions were intended to describe aspects of the program, determine students' experiences of the program, or reveal changes in their attitude towards school,

science, or other topics related to benefits supported by research. I interviewed students throughout their Outdoor School experience to gauge changes. I also created a preliminary video outline and list of scenes I wanted in the video, to guide my filming. With support from OSU Extension Service, I modified the Oregon State University short model release form for use in this project (Appendix B). Both OSU Extension Service and the supporting education service district provided assistance in distributing and collecting the release forms.

Participants

An Education Service District (ESD) in Oregon provided me the opportunity to film in the fall of 2018 at one of their Outdoor School sites, during a 6-day, 5-night program, and connected me to a 6th grader teacher who would be taking their class that week. This teacher and class came from one of the most diverse school districts in Oregon. The teacher introduced me to my main participants, who were chosen because both students and their parents were willing to participate in interviews. My participants were two 6th graders, one female and one male.

In addition to the main participants, I interviewed their parents, their teacher, their peers, high school volunteers called "Student Leaders" (SLs), and Outdoor School staff members. One parent of each participant was interviewed, and both families had older siblings who had attended ODS. The students' teacher had an extensive relationship with ODS: she participated as a 6th grader, high school volunteer, and staff member, and continues to be engaged as a 6th grade teacher and active advocate of ODS. The additional peers were chosen because of their expressed interest. Of the four SLs interviewed, two were 1st time volunteers and two were returners. Of five the staff

members I interviewed, two were field instructors, who oversee the curriculum, three were program leaders, who oversee the cabins, and four had previously participated in ODS, as both a 6th grader and SL.

Data Collection

I interviewed the main participants before, throughout, and after their week of ODS, and filmed their engagement in the program from when they got on the bus to ODS to when they departed the site. I stayed on site through the whole week of Outdoor School to film. Interviews were conducted at times deemed appropriate by the teacher and ODS staff, minimizing disruption of the students' experiences. I filmed using an iPhone 7 with 1080p HD at 30 fps. Additional equipment included a recorder, lavalier lapel microphone kit, gimbal, and tripod, loaned from Oregon State University Student Multimedia Studio.

Data Analysis

Almost 23 hours of footage was captured. I uploaded all video and audio files into my OSU cloud accounts, and processed them using a spreadsheet (Appendix C). For each file I documented its name, a short descriptor, notes and key quotations, "tags," its usability ranking, and duration. "Tags" were identifiers for the clips, including relevant participants or subjects discussed in the video. For example, a clip where Field Instructor "M" was leading cabins inspections would be tagged "#FIM #cabin." This eased the process of searching participants or subjects of interest when creating the script. For my ranking system, I used "X" for footage to not use, "V" for footage that I could use, and "!" for footage I wanted to use. "X" footage included those that had a poor camera view or insignificant content. "V" footage included acceptable footage in terms of camera view

and content, and "!" footage consisted of exemplary content and camera views. This also facilitated the finding of desired clips for the script.

I created a script (Appendix D) after capturing and processing footage in order to better understand what content and stories I had, and how I wanted to communicate them. I formatted a table with three columns. The first column was the audio script, consisting of narration, participant quotations, and general descriptions. The second column was the video script, which listed the file name of the clips to be used, and a description of what the audience will see. This included text overlays, such as the title and citations. The third column was listed the purpose of the scene, such as hook, body and transition segments.

Thematically, I used the five principles of Outdoor School (Oregon State University Extension Service, 2018b, p.1) as the body of the video. Referencing these five principles, I first recalled exemplary "!" footage that addressed each. I then recalled components of the specific program I visited that also correlated to the principles, such as how student leaders professionally develop when teaching at Outdoor School, aligning with the third principle of engaging teaching methodology (Oregon State University Extension, 2018b, p.1). I subsequently identified additional relevant footage using my tags. I arranged the footage I compiled for each principle in a compelling order, and added narration when needed to enhance the message. This process was also applied to scripting the introduction, transitions, and conclusion.

I post-produced in iMovie, following the script and modifying as necessary.

Findings and Discussion

Due to release limitation, the video currently cannot be publicly accessed.

However, in this section I was able to discuss some of the content I used to

address each principle of Outdoor School (Oregon State University Extension Service, 2018b, p.1), as well as patterns that I noticed through the analysis.

High Quality Curriculum

When asks about Outdoor School curriculum, the teacher shared,

"in our [school] district, Outdoor School is part of the 6th grade curriculum. It aligns to our NGSS and state grade level science standards, and some of our social studies standards, and health standards about healthy relationships and cooperation and building self esteem."

NGSS is shorthand for Next Generation Science Standards, science content standards for grade levels K-12 comprising of three components: practices, crosscutting concepts, and disciplinary core ideas (NGSS Lead States, 2013). In the video, students demonstrated engagement with all three aspects when participating in a lesson involving skulls. They added to their knowledge of the crosscutting concept of structure and function and disciplinary core ideas of life science when learning how teeth shape can indicate what an animal eats, and they engaged in the practice of analyzing and interpreting data when they observed the teeth of each skull and suggested if the animal was an omnivore, herbivore, or carnivore (NGSS Lead States, 2013). Though I was not able to include every activity in the video, I observed countless moments where students actively engaged in inquiry and learning that exemplifies NGSS application.

During their last night of Outdoor School, the teacher asked her students to raise their hand if they thought they were a better scientist that night than they were when they first arrived at Outdoor School. A resounding majority raised their hands. "Everybody

grows at Outdoor School," the teacher asserted, "because we learn at Outdoor School, but also because we become better learners."

Purposeful and Sequential Flow

One of the staff members said, "I really like the intentional community that ODS creates...there is intent behind everything that we do and that by the end of the week we're able to notice big change." When a student realized pH can be measured for both soil and water, they demonstrated the connectedness of the field studies, one aspect of purposeful and sequential flow. Another component is revealed when one of the staff members discusses the wood cookie, a slice of tree that students commonly wear as their name tag in Outdoor School programs. He noted that though it is nominally a student's form of identification, it more importantly served as a visual representation of how their identity as a community member develops throughout their time in the program. This acted as a testament to how even non curricular activities held purpose. A third part of purposeful and sequential flow occured when a student shared his observations about worms near his house when the group was learning about worms and compost, showing how Outdoor School connected back to their lives at home. These examples cumulatively depicted Outdoor School's relevance to students, both within and beyond the program itself.

Engaging Teaching Methodology

The two constituents of this principle were physical engagement of the participants, and professional development of the Outdoor School providers (Oregon State University Extension Service, 2018b, p.1). Students expressed their appreciation for physical engagement. When asked if Outdoor School had changed their view of school,

one student said "Yes, because I figured out that learning can be so more fun if you actually deal with what you're talking about and see it in real life." I used footage of the student learning about the components of loam and then creating it in soil field study to bolster his statement. "We get to learn about things as we're doing it."

For the professional development component, I focused on the student leaders. "I definitely do Outdoor School for the kids," one returning student leader said. I then show this student leader asking students to make observations, and affirming them when they ask questions. The teacher added, "The student leaders increase the opportunity for students who are like them, for students they can connect to...the diverse cultures and personalities of the student leaders allow connections between the diverse students that I bring in." Another student leader revealed, "I feel like my teaching abilities are way better...I'll definitely take dealing with kids skills [from Outdoor School]...I've learned a lot of new teaching skills here." A 6th grader in the student leader's cabin showed the student leader's impact on them when he said, "he feels like a big brother to me."

Staff members who previously volunteered as student leaders all considered it impactful. One person shared, "being a student leader ended up being more than I could have imagined. It totally changed my high school experience, it helped me keep my grades up because it required me to have good grades in order to be a student leader, it was a place where I made better connections than I did in my day-to-day school, and it kind of gave me a little more meaning to my life than I did just by being a highschool student elsewhere." In addition to the personal and social impact, Outdoor School may have influenced student leaders' career paths. The teacher revealed, "in 22 yrs I have

many former students who have gone in, gone on to major in sciences...[and] seen a lot of students on to become student leaders themselves as a first step in to education."

Social Emotional Learning

"I come to Outdoor School because I am a 6th grade teacher, but also because I am a strong advocate of both the science aspect and also the social emotional components and growth that I see in my students." Two parts of the program I visited that aligned with this principle were the cabin and meals.

"On top of the educational aspect, there's a huge community aspect, being put in a cabin with students from other places, other neighborhoods, other families, other backgrounds, and building those connections that they wouldn't have gotten to build otherwise." Cabins consisted of one or two student leaders living with a mixture of 10-12 students from all the schools present. Though all students admit that at first they were nervous or felt "weird" about living with people they had likely never met before and perhaps will not again, as the week progressed students reacted positively to the experience. "It feels interesting because...you think it's cool that you get to meet ppl from other place of Oregon," a student reflects. He added that one of his favorite parts of Outdoor School is "when my roommates in my cabin late night when we can't sleep we talk to each other until we can."

Meals were conducted "family style," and students took on responsibilities from setting up the table to hosting, serving, and cleaning up afterwards. I show a montage of students working in these roles while a staff member talks about meals as an opportunity to "practice interacting with other people...[and] meeting other people's needs," and the teacher said "after a week of ods, we have a stronger sense of cooperation, increased

abilities to work together with different groups of students in small group activities, and a lot of time I see that students are a lot more dedicated to school after we've returned to our regular classroom."

Safe and Inclusive Environment

I opened this segment with the teacher saying, "[Outdoor School] gives them an opportunity for an equity that a lot of them rarely have opportunity for. I don't start a single day of school knowing that all my students have eaten a full breakfast...go home to a place that has electricity and heat at night, ...someone that says goodnight to them, or to make sure that they've eaten every meal or get to every place on time." As the teacher spoke, footage of students eating breakfast, spending time in their cabin, and going to the next activity visualized how these needs are met at Outdoor School. Next, a staff member said, "a big reason why I'm at Outdoor School and why I work here is to be the representation for the people who don't really get represented often." Then, another staff member shared their most memorable story from Outdoor School, working with a student who was diagnosed with Down Syndrome. Though the student initially struggled to acclimate to Outdoor School and his new peers, at the end of the week he was crying and sad to leave because Outdoor School was a place "where he felt loved."

I then highlighted two noteworthy patterns that emerged during interviews. The first was that the majority of interviewees who had participated in Outdoor School as a 6th grader in the past and came back to the program, including student leaders, staff members, and the teacher, said that they had returned to Outdoor School because they had made a promise, whether it was to themselves, a mentor in the program, or in one case, a puddle next to the bus going home. The second was that multiple interviewees

described Outdoor School as "magic" or "magical." One staff member captured the general sentiment of both patterns when she said, "I made a promise to myself to come back as a student leader, just because the feelings that I got... I couldn't describe them in 6th grade, but I knew that it was something different and something special and something that I never experienced before." While these patterns may not have directly addressed a sub-principle of Safe and Inclusive Environment, they certainly underlined the strength of the communities Outdoor School is able to provide for many people, that allows for them to be vulnerable and grow.

Conclusion

In this thesis and short film, I aimed to vividly depict what Outdoor School and its impact can be for participants. The participants' recorded interviews and engagement in activities addressed all five key principles of Outdoor School, and reinforces the literature that suggests that students who attend Outdoor School reap an array of benefits. This video could serve as a tool for informing Oregonians and people across the United States how Outdoor School could positively impact their youth and communities.

Future extensions of this work include creating additional short films featuring other Outdoor School programs, to showcase the variety of models and regions they take place in, while underscoring their unified purposes. This could show constituents across the state that Outdoor School applies to and benefits their specific communities. In addition, more in-depth and intentional study of the multitude of Outdoor School programs in Oregon can occur. As OSU Extension Service has recently released their pilot study evaluation of ODS and continues to study the impact of the program (Braun, 2019), video could be used as part of conducting and communicating their findings to the

public. Similar to OPB's project following the Class of 2025, participants of Outdoor School could be followed long term, perhaps through adulthood. Longer studies could increase understanding of Outdoor School's impact on aspects discussed earlier, particularly personal, social, and career development, and civic leadership.

I found this thesis to be both professionally and personally rewarding. In completing my thesis and studies, I have determined two goals I will pursue in my career: to foster more culturally responsive partnerships between healthcare providers and patients, through both creating continuing education content for healthcare providers and outreach programs with underserved communities; and to shape the healthcare system to be more environmentally sustainable. All these endeavors will be enhanced by the skills I honed through this thesis, including interpersonal communication, science communication, and the technical aspects of filmmaking, from development to post-production. Personally, I achieved fulfillment by contributing to a program that I have a deep connection to, and completing my cycle of involvement in the program, from child participating in it to adult advocating for it. I look forward to what Outdoor School brings to others, and hope that this thesis assists.

References

- Becker, C., Lauterbach, G., Spengler, S., Dettweiler, U., & Mess, F. (2017) Effects of Regular Classes in Outdoor Education Settings: A Systematic Review on Students' Learning, Social and Health Dimensions. *Int. J. Environ. Res. Pubich Health*, 14, 485-505. doi:10.3390/ijerph14050485
- Braun, S. (2019). Outdoor School for All!: Diverse Programming and Outcomes in Oregon: 2018 Pilot Study Evaluation [PDF]. Retrieved from https://grayff.org/wp-content/uploads/2019/02/OSfA-Evaluation-highres-2.19.19.pdf
- Friends of Outdoor School. (2016). The OutdoorStories Project. Retrieved from http://www.outdoorstoriesproject.com
- Gray Family Foundation (2015). Empirical Evidence Supporting Benefits of Outdoor

 School and Experiential Learning Programs [PDF]. Retrieved from

 http://grayff.org/wp-content/uploads/2013/10/Empirical-Evidence-Supporting-Benefits-of-Outdoor-School-and-Experiential-Learning-Programs March-2015.pdf
- Heath, C., Hindmarsh, J., & Luff, P. (2010). *Video in qualitative research*. Available from
 - https://uk.sagepub.com/en-gb/eur/video-in-qualitative-research/book229882
- Keyes, D. (2017). Outdoor School in Oregon [PDF]. Retrieved from https://grayff.org/wp-content/uploads/2018/07/ODS-final-report.pdf
- Multnomah Education Service District. (n.d.). Outdoor School History. Retrieved from https://www.mesdoutdoorschool.org/history.html

- NGSS Lead States. (2013). Next Generation Science Standards: For States, By States. Washington, DC: The National Academies Press.
- Oregon Secretary of State. (2016). Measure 99 [PDF]. Retrieved from http://oregonvotes.org/irr/2016/067text.pdf
- Oregon State University Extension Service. (2018a). ODS Annual Report 2017-18

 [PDF]. Retrieved from

 https://oregonstate.app.box.com/s/c2k565f7uw2b2jzfkkqls6nmk6ttl7gj
- Oregon State University Extension Service. (2018b). 5 Principles of Outdoor School [PDF]. Retrieved from https://oregonstate.app.box.com/s/q3hyxli9ny6hbjqllhvjm8uzxk3atp70
- Oregon State University Extension Service. (2018c). Year One: Outdoor School by the Numbers [PDF]. Retrieved from https://extension.oregonstate.edu/sites/default/files/documents/1/2017-2018odsbythenumbers.pdf
- Rickenson, M., Dillon, J., Teamey, K., Morris, M., Choi, M.Y., Sanders, D., Benefield, P. (2004). A Review of Research on Outdoor Learning [PDF]. Retrieved from https://www.field-studies-council.org/media/268859/2004 a review of research on outdoor learning.pdf

 Senate Bill 439, O.L.A., 78th, ORS 327.390, (2015).
- Wheeler, G. & Thumlert, C. (2007). Environmental Education Report: Empirical Evidence, Exemplary Models, and Recommendations on the Impact of Environmental Education on K-12 Students [PDF]. Retrieved from http://www.k12.wa.us/EnvironmentSustainability/pubdocs/EEReport.pdf

Appendix

Appendix A: Interview Questions

Note that not all questions are listed, as some follow up arose spontaneously.

PRIOR TO OUTDOOR SCHOOL:

a. Students:

- i. Can you please tell me your name and what grade you're in?
- ii. Can you tell me a little bit about yourself?
- iii. What do you know about Outdoor School
- iv. How do you feel about going to Outdoor School?
- v. What are you and your class doing to prepare for Outdoor School?

b. Teacher:

- i. Can you please tell us your name and relation to Outdoor School?
- ii. Can you tell us about your experiences with Outdoor School?
- iii. Why do you bring your class to Outdoor School?
- iv. How has Outdoor School impacted your students in the past?

c. Parent(s) or Legal Guardian(s):

- i. Can you please tell us your name and relation to [students]?
- ii. Can you tell me what you know about Outdoor School?
- iii. Why are you sending your child[ren] to Outdoor School?
- iv. How do you feel about letting them go on an overnight school trip?

d. Outdoor School staff member

- i. Can you please tell us your name and relation to Outdoor School?
- ii. What is Outdoor School?

iii. Can you tell me more about this Outdoor School program and site?

e. High School volunteer ("Student Leader")

- i. Can you please tell us your name and relation to Outdoor School?
- ii. What is Outdoor School?
- iii. Why are you volunteering for Outdoor School?
- iv. What are you looking forward to?
- v. What do you hope you can achieve while at Outdoor School?

2. AT OUTDOOR SCHOOL:

a. Students:

- i. Can you tell me about, and how do you feel about:
 - 1. Arriving to Outdoor School
 - 2. Wood cookies
 - 3. Beads
 - 4. Field Study
 - 5. Cabin Time (especially on first, middle, and last days)
 - a. How do you feel about living and learning with students from other schools?
 - 6. Meal Time (especially on first, middle, and last days)
 - 7. Campfire (especially on first, middle, and last days)
 - 8. Last campfire
 - 9. Tree ceremony
 - 10. Departing Outdoor School
- ii. What was your favorite memory from this session?

- iii. How do you think Outdoor School has impacted you?
- iv. Do you think Outdoor School has changed your excitement for school? Why?
- v. Do you think Outdoor School has changed your excitement for science? Why?
- vi. How did Outdoor School make you feel?
- vii. What are your biggest lessons from Outdoor School?

b. High School Volunteer or Outdoor School staff member:

- i. Before kids get to Outdoor School: How do you feel?
- ii. Can you tell me about:
 - 1. Wood cookies
 - 2. Beads
 - 3. Field Study
 - 4. Cabin Time
 - 5. Meal Time
 - 6. Campfire
 - 7. Last campfire
 - 8. Field Day
 - 9. Tree ceremony
- iii. What was your favorite memory from this session?

c. Teacher:

- i. Tell me about your observations of the following events:
 - 1. Arriving at Outdoor School

- 2. Field Study
- 3. Cabin Time
- 4. Meal Time
- 5. Campfire
- 6. Departing Outdoor School
- ii. Is there a difference in student behavior and engagement at Outdoor School compared to in the classroom?
- iii. What was your favorite memory from this session?

3. AFTER OUTDOOR SCHOOL:

a. Students:

- i. Can you describe Outdoor School to me?
- ii. How does Outdoor School make you feel?
- iii. What has changed since you came back from Outdoor School?
- iv. How do you think Outdoor School has impacted you?

b. Teacher:

- i. How do you think Outdoor School has impacted your class?
- ii. Based on your previous classes, have you seen any long-term impacts from Outdoor School?

c. Parent(s) or Legal Guardian(s):

- i. How has Outdoor School impacted your child at home?
- ii. Are you satisfied with having sent your child to Outdoor School?
- iii. Would you recommend other parents and legal guardians send their children to Outdoor School?

- iv. Any advice for other parents?
- v. How do you feel about Oregon publicly funding Outdoor School?

Appendix B: Release Form

Note the return date listed was extended, and an online version of the form was also available, for which participants or their guardians used a verified email address.



Oregon State Model and Information Release – Oregon State University

Lauthorize Oregon State University (OSU), and those acting pursuant to its authority to:

Record my name, likeness, voice, participation, comments and/or appearance; in audio/visual media, including, but not limited to, video, sound and photographic still imaging; or written material; on or around this date; on the following topic: Outdoor School session at Camp Namanu from September 23 through

September 28 and post interviews from October 1 through 19.

These recordings, statements and written material may be disclosed to the general public for the purpose of publicizing and promoting OSU; in any medium, present or future, including but not limited to print, Internet, social media networks, direct public presentations, speeches, video or audio.

The institution may further release, exhibit, authorize the use of and distribute such recordings and materials, in whole or part, without restrictions or limitation throughout the universe, for any educational or promotional purpose until revoked, which Oregon State University and those pursuant to its authority deem appropriate. I waive any right to inspect and/or approve the finished product, or the use to which it may be applied. I recognize and authorize that release of such materials may often be made to, and used by the public news media or other entities over which Oregon State University has no control; and for which the institution bears no responsibility.

I understand that Oregon State University is not responsible for the unauthorized use of my name, likeness, voice, printed or biographical material by these third parties, including, but not limited to the news media; web sites; downloading of images and videos from the Internet or social media networks such as YouTube, Facebook or Flickr; or other distribution networks that may be developed; now or in the future.

I represent that I am at least 18 years of age and that I have read and fully understood the above paragraphs, and am knowingly and voluntarily executing this release without compensation to myself.

Name (printed):	Date:			
E-mail (optional):				
Telephone (optional):				
Signature:				
Parent/Guardian signature (if under 18):				
I do not authorize the use of me and/or my child's name, likeness, voice, participation, comments and/or appearance for the purpose of publicizing and promoting OSU.				
Please sign and return this form on or before October 19, 2018 and email it to outdoorschool@oregonstate.edu, or mail it to: OSU Extension Service - Outdoor School 325 Ballard Hall	. To return the form, please scan			
Corvallis, OR 97331 If you have questions, please don't hesitate to contact Rita Bau	ier at (541) 737-4391			

Appendix C: Footage Processing

Due to release limitation, I can only show a sample of my processing spreadsheet.

The columns from left to right are the file name, brief descriptor, notes and key quotations, tags, usability ranking, and duration respectively.

IMG_1571.MOV	Students get FAS beads	-3:21: student explains spider web vibrations -4:04: if you mess with any part of food websend rxn all over -7:05: this exercise showsstudent says ??: FIC says I want you to tell me one thing learned for a bead -9:30: 6W learned something re: dinos and valley erosion -10:45 student says thing learned is live v. dead tree, gets bead	#FSA #beads	V (act. too long?) ! animals bead	0:11:37
IMG_1572.MOV	x		#FSA	X (no content)	0:00:03
IMG_1573.MOV	SLB Intow 1	0:11: "Well [kids have] a lot of energy" 1:20-0:24: "I'm really tired, but I'm ready to do more work." 1:11: FS 1:21: excited to teach 1:50: learning re plants can help kids make gardens 2:05: 1st day teacing FS 2:40: last thoughts? "it's amazing here. it's a good vibe we have gardens but like we're not living in a forest forest energy is much better 3:00: "so much calmer"	#SLB	I quote at 0:20 I it's amazing here. 2:40	0:03:14
IMG_1574.MOV	SLK Intow 1	1:23: how do you feel now that kids are here 1:46-1:5f: I definitely do ODS for the kids 2:04: my cabin is really sweet. 2:30: re:skit 3:05: yeah there's been some homesickness but that's expected a few kids where this is the first time they're away fr home 3:11: FS. I love water FS. It's really fun teaching re pH. 5:03: I love seeing campers' skits, they're so fun 5:40: do ods! fund it! it's such a good learning exp for everyone	#SLK	11:46 15:40	0:05:54
IMG_1575.MOV	FIM preps cabins for conservation prestn			X (not needed)	0:08:39
IMG_1576.MOV	Conservation presentation	3:30 demonstration of shaking hands dry	#nature	V (use just audio? poor vid angle)	0:04:16
IMG_1579.MOV	M Dusk 1			! (good B-roll, both vid and aud.)	0:00:35
IMG_1580.MOV	M Dusk 2			! (good B-roll aud? don't use vid)	0:00:13
IMG_1581.MOV	Fireplace 1	0:05-0:08: good vid	#campfire	V (good fire clip? but not outside)	0:00:08
IMG_1582.MOV	Fireplace 2		#campfire	V (good fire vid but not good aud)	0:02:46
IMG_1583.MOV	Fireplace 3	~0:05- before 0:34, but esp after 0:34: good vid	#campfire	V (good fire clip but not outside)	0:01:00

Appendix D: Video Script

Due to release limitation, I can only show a sample of my video script. The columns from left to right are the audio script, video script, and purpose respectively:

"You guys are awesome"	1870.MOV: clip of girls	Act 3: End
1789 MOV 8:37: most memorable moment of each Outdoor School week is the	hugging	Summary: 1. Resolution
	1871.MOV 0:07-09	Resolution Deliver or re-
time that we leavethe reason is that is when I get to see the impact of the	clip of student	emphasize the
program on my studentsin their hugs in their tears, in their tiredness, in the connection that they have with each other, [9:19]	hugging/saying	opinion
connection that they have with each other, [9.19]	goodbye/getting on bus	3. Takeaway
1819 MOV 17:37-53; an opportunity for students to get their first chance to see	goodbye/getting on bus	3. Takeaway
how they can impact the communities around them, because they form that		
community.		
community.		
1879.MOV IS:20: what's the most memorable experience you've had in all your	1854.MOV 0:30 student	
time with ODS? PLG: It was actually today, one of the girls, she was struggling at	hugging staff	
the beginning of the week, I was hugging her and she was crying and sad to go, but		
all through the week she was saying "I wanna go home, I wanna go home," and	montage of stills from the	
she hugged me and she whispered to me "thank you so much for everything." I	week? Maybe use vid not	
don't think I've ever experienced that feeling before.	stills	
	SLC topography:	
	IMG_1626,JPG	
	SLN with tree layers:	
	1700.MOV at 0:31	
	1832.MOV 6A smiles	
	1864.MOV 3:14-17 6W and	
	6jn laughing	
1789.MOV		
9:29-51 when we get on the bus away from ods, I'm taking back a different group	1075 1401/ 0-45 0-50	
of students. Because everybody grows at Outdoor School, because we learn at	1876.MOV 0:46-0:59	
Outdoor School, but also because we become better learners.	Bus drives away, staff and	
10:11-10:31 tomorrow you'll be better [10:27] and that's what you'll remember about ODS	SL wave	
about ODS.		
	Quick clip of student	
B-roll audio: "that's so cool" OR some other quick small clip to close with students	The state of the s	~End of vid, transition to
similar to the hook	fades to black or white	credits
	since logos have to be on	
a. 1690.MOV: 2:05: "Has ODS changed your excitement for	white?	
school? Yeah, a lot! thought it wasn't likeschool wasn't cool		
and it couldn't be fun learning, but I was totally wrong."		