

A PLACE-BASED STUDY OF ALASKAN ANIMALS

By

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A Project Submitted in Partial Fulfillment of the Requirements

for the Degree of

Master of Education

in

People, Place, and Pedagogy

University of Alaska Fairbanks

December 2020

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Abstract

In the spring of 2020, my second-grade class, located in Fairbanks, AK, dived into a place-based exploration of Alaskan animals. The aim of the project was to increase students' connections and understanding of the state where they live (Alaska) and the animals that they share it with. Through a backwards design, inquiry-based instructional model, my students met state standards with an integrated-subject approach. With art, guest speakers, research, and field trips my students learned about the Animals that share Alaska with us, their environments, and their adaptations. Students used informational writing published on digital mediums to share their knowledge with others. I propose to share this unit with other educators in the form of a website with links and lesson plans so that more teachers and children have access to quality place-based materials that align to state standards.

From January through March 2020, my second-grade class (located in Fairbanks, AK) embarked on a place-based unit of study on Alaskan animals and their adaptations. My students explored and researched the animals that live in Alaska through guest speakers, field trips, art projects, books, and videos, and shared their knowledge through informational writing and digital technology. The aim of the project was focused on increasing students' connections and understanding of the state where they live (Alaska) and the animals that they share it with. The students became knowledgeable about many Alaskan animals and grew in awareness and compassion for the creatures that share our land. Another goal of this project was to meet state science, reading, and writing standards through an integrated instructional approach. The guiding questions for this project were: What animals share this land with us in Alaska? What can we learn about and from these animals? What adaptations do these animals have to survive in this harsh cold climate? And on the instructional side, how can we meet state standards through a meaningful place-based unit? Throughout this experience, students engaged, learned, connected, and shared in real and meaningful ways as engaged citizens and researchers of their place.

About the Author

I am a certified elementary school teacher located in Fairbanks, Alaska. My bachelor's degree is in early childhood education, elementary education, and teaching English language learners. I am currently pursuing my Master's in Education in People, Place, and Pedagogy at the University of Alaska Fairbanks. I am passionate about hands-on learning as well as the power of arts integration. Children are capable, and build structure and routines into my classroom to encourage autonomy and responsibility. I work to involve my students in the local community and natural world by bringing in community experts and providing educational opportunities outside in both the natural world and the community. I taught two years of first grade before

looping with my students to second grade. I did this project with my second grade students during my third year of teaching. This Alaska Animals unit was a learning experience for both my students and myself. I am sharing this project with you in the hopes that other teachers will be inspired to pursue similar projects and to introduce more teachers to the world of place-based education.

Literature Review

The Potential Downfalls of Standardization

“But why do we need to learn this? When am I ever going to use this in *real* life?” This gripe is so common it has become cliché. As frustrating as it is to be asked that question as a teacher, it is clear that teachers need to do a better job of making the *why* behind their teaching clearer to students. The rise of standardization in education has played a harmful role in disengaging classrooms from their communities. State requirements for curriculum and high stakes tests often pressure teachers into having everyone be on the same page every day. Teachers feel the need to push on with the curriculum, and teach to the test instead of exploring creative learning in their own backyards (Sobel, 2004). It is no surprise therefore that students often see school as separate from their lives outside of school. Knowledge is too often seen as abstract, disconnected from the real experiences of students, real problems, and the places where we live (Orr, 2005). As Dewey (1959) states, “That is the isolation of the school, its isolation from life,” (p. 76). For Dewey, education is “not preparation for life; rather, education is life itself” (Dewey, 1916). For learning to be meaningful and important to students we need to make sure that the classroom is not isolated. Students need to see how learning connects to their life and their place outside of the walls of the classroom.

An Antidote to Isolation

Place-based education provides connection between classroom, community, and place. In place-based education, language arts, mathematics, social studies, science and all of the academic subjects across the curriculum are grounded in the local community and environment. These subjects are taught as they pertain to students' lives, therefore connecting the classroom to the community. Students don't just learn about their local community and environment, but become active participants within it. When we root curriculum into a place, children see themselves, their families, and their home in their learning. It becomes obvious what they are learning and why. When place is incorporated into curriculum development, children see themselves in their work. Their everyday experiences become the backbone of knowledge in the curriculum, validating their experiences and prior knowledge, while challenging them to tackle real problems within their communities. This work is deeper and more meaningful than working with generic curriculum materials. Place is central to who we are, and places are profoundly pedagogical" (Gruenwald, 2003, p. X). When students see themselves in what they are learning, students more easily understand why they are learning what is being taught (Smith, 2013).

Authentic Integration

With place-based education, not only are the boundaries between school and life blended, but also the artificial boundaries between traditional school subjects. The place-based educational model does not teach subjects in isolation, but teaches them as they naturally work together in real world situations. Place-based projects do not fit into just one content area category. Anderson (2017) argues that core academic content can be delivered effectively and even more richly through an integrated subject approach with a place-based educational model. She asserts that this aspect of place-based education corresponds with the effort to promote

lifelong learning because no problem in real life is going to involve just one traditional school subject. By removing the artificial boundaries between school subjects, students can more easily recognize how everything is connected. Teaching this way gives multiple dimensionalities for students to connect with content, through writing, art, and hands-on experiences. Maybe not every modality will click with every student, but the value of academic work becomes clear when it is in context. For example, students who have always hated writing find purpose in it when they use it to persuade, inform, or explain science content (especially their favorite local animal) that they are passionate about to others. Students who have never seen themselves as mathematicians learn to use math in real contexts that help learning click for them when doing interior design. Place-based units are not “add-ons” but, rather, integrated units that provide deep, long-lasting learning that can help to close the opportunity gap by making learning hands-on and relevant.

Civic Engagement

One of the goals of place-based education is to help raise citizens who understand how their community functions and how everyone and everything is interconnected (Anderson, 2017). The goal is not only to educate the citizens of the future, but also to empower young people to make civic changes to their communities now. Previously thought of solely in terms of the adults they will become for society, children are now being viewed as individuals capable of change in their own right. Children are cultural change agents, who through their individual actions, can make a difference in relationships, decisions, and create their own set of social rules (James, 2009). Children have the power to change their communities. In place-based education, learning is connected to action (Clark, 2008). Anderson (2017) claims that, “Civic engagement is central to this approach. By working to make a difference in the places where they live, students

develop civic knowledge, skills, and values while gaining even more motivation to make a difference,” (ch. 1 para. 2). Through place-based education, children are seen as capable contributors to their communities, and therefore rise to the expectation and become so, learning how their communities function along the way.

Stewards

Learning about one’s place leads to place attachment which is the foundation for environmental action. According to Clayton and Devine-Wright (2005), “A growing number of studies show the relevance of place-based, or locally anchored, psychological processes, such as place attachment and place identity, for various global change-related pro-environmental attitudes and behaviors” (p. 14). When people care about something, they are much more likely to work to protect it, especially when protecting it involves changing behaviors and personal sacrifices. Green (2018) found in her research with young children and the environment that when students feel care and concern for the natural world, it leads them to engage in a moral commitment to steward and act on behalf of it. Sobel (1996) agrees and states that, “If we want children to flourish, we need to give them time to connect with nature and love the Earth before we ask them to save it,” (p. 1). Louv (2005) documented a rising disconnect between children and the natural world, which he coined nature-deficit disorder. Place-based education can help to address this deficit by connecting children with their local ecology and bioregion. Too often, school mentality is removed from the natural spaces they inhabit and forming a relationship with the natural environment is not part of the curriculum. Place-based education is a gateway for teachers to help students form relationships with the planet and learn how to be stewards of their environment.

Partnerships

David Sobel (2013) suggests to “put an environmental educator in every school,” (p. 73). However, this is not the reality in most public schools and so teachers must reach out and form partnerships between their class and experts in the local community. A partnership is a two-way relationship between a local organization and a class of students. Teachers can collaborate with anyone who has expertise in the area of their class’ place-based studies. For example, a class may form a partnership with a local architecture firm and the local history museum when studying the historical architecture of their city, or maybe they form a partnership with a local gardening club when learning about the native and invasive species in the local park. These partnerships are a key element of place-based education as they are what connect the students to the greater community. To be a true partnership, the relationship must be mutually beneficial.

Theoretical Perspectives

Place-based Education

No axiomatic theory of place exists: the theory of place depends on the theorist. However, we know that place defines us and we in turn mediate place. We define what place means and how it helps to define our self-identity and culture. Humans thrive when they have a sense of, and commitment to, place and community. As a teacher of many children with parents in the military and who therefore move every three years, it was even more important to me to help these children develop a deeper relationship with the place where they live. Developing a relationship with our place helps us to know ourselves. Where we are becomes a part of who we are. According to Gruenewald (2003), “As centers of experience, places can be said to hold our culture and even our identity,” (p. 625). Place defines where we can go, what we can experience, and what we can do. Especially in an extreme climate such as Alaska, place defines us and

becomes part of our being. Learning about the animals that share our state was important for the students to deepen their relationship to and understanding of where they live and who they share this place with as well as an amazement for the beauty and extremity of their Alaskan home.

Mosaic Approach

The mosaic approach was developed by Clark (2005) as a way to better listen to children. In this approach, the teacher acts as a researcher, simultaneously learning content alongside students as well as researching the students themselves. The teacher listens to their students to figure out what they know, what they have misconceptions about, what they are interested in, their priorities and their concerns. They listen for the hundreds of ways that children communicate, through art forms, through play, and through language. The teacher uses this information to guide what experiences they provide for their students. Children are seen as competent with the ability to be catalysts for change. This approach was at the backbone of this unit as I planned multi-modalities for students to express and process their knowledge and thinking through art projects, community interactions, storytelling and writing. I used what I learned from listening in these ways to my students to drive the unit forward.

Emergent Curriculum

The term emergent curriculum here refers to the process of developing knowledge and curriculum with students based on the interests and needs of the students. In emergent curricula, teachers plan lessons based on their student's interests and concerns. Lessons develop into genuine inquiry as teachers become co-researchers and participants in the learning alongside their students (Wein, 2008).

Standards

I grappled with the role of standards in place-based education. As a public school teacher, I am expected to teach the standards. How did they fit into this place based unit? On the surface, they seem contradictory to the contextualized and emergent philosophy. However, I have found that place-based education is not in conflict with state and national standards. As the standards are so broad, there is still infinite creative license for teachers and students to co-create the learning path for how to meet them.

Having the standards to aim for actually made my place-based project more academically rigorous. I do not believe I would have introduced text features if it weren't a standard. I might also not have thought to have students publish their work digitally which turned out to be an amazing learning opportunity, engaged my struggling writers, and produced high quality work. Place-based education has even been shown to heighten student success on standardized tests (Sobel, 2004). So, can we use standards in a positive way? I started this unit with the goal to meet the 2nd grade standards for explanatory writing and the 2nd grade standards for understanding animal habitats. However, this unit expanded into so much more. The following standards were addressed in this unit, most of which fell in naturally along the way.

| English Language Arts |
|--|
| <i>Craft and Structure</i> |
| 5. Know and use various text features (e.g., captions, bold print, headings, charts, bulleted or numbered lists, electronic menus, icons) to locate key facts or information in a text efficiently (Alaska Department of Education & Early Development, 2012, p. 1). |
| |

Writing

2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or one or more concluding sentences that emphasize their most important point or focus.
5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed (e.g., adding concrete and sensory details; elaborating on how the details chosen support the focus) by revising and editing.
6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report or visual or oral presentation; record data from science observations).
8. Recall information from experiences or gather information from provided sources to answer a question (Alaska Department of Education & Early Development, 2012, p. 4).

Science

2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats. [Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.] [*Assessment Boundary: Assessment does not include specific animal and plant names in specific habitats.*] (Alaska Department of Education & Early Development, 2018, p. 46).

Cultural

E. Culturally-knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them.

2. understand the ecology and geography of the bioregion they inhabit (Alaska Department of Education & Early Development, 1998, p. 8).

Digital Literacy

K-2.DC.3 With guidance from an educator, students learn about ownership and sharing of

information, and how to respect the work of others.

K-2.KC.1 With guidance from an educator, students use digital tools and resources, contained within a classroom platform or otherwise provided by the teacher, to find information on topics of interest.

K-2.CC.2 Students use digital tools to create original works.

K-2.GC.1 With guidance from an educator, students use technology tools to work with friends and with people outside their neighborhood, city and beyond (Alaska Department of Education & Early Development, 2019, p. 4-8).

Methods

It is clear that place-based education is a valuable instructional framework for increasing student engagement, deepening learning, and connecting students as citizens and stewards of their place. A typical unit in many primary school classrooms is writing animal reports. This unit allows students to explore a topic that is generally interesting to the age group as well as develop important informational writing skills. However, instead of just researching animals at random and out of context, thereby contributing to the dichotomy of school and home, I focused our class studies on the amazing animals that share our state — Alaska. This Alaska Animals unit is a place-based thematic unit that uses the local context as the vehicle for learning. Through this unit, core academic skills including writing, reading, researching, and science were authentically integrated as we explored the animals that share our Alaskan home. We learned about Alaskan animals as they connected to our classroom, community, and our place. We connected with our community through guest teacher scientists and field trips to see and learn about live Alaskan animals. We expressed our learning through multiple modalities.

Modified Backwards Unit Design

For this project, I used a “modified” backward design instructional approach as an outline for this unit. Traditional backward design has three stages: identify desired results, determine assessment evidence and then plan learning experiences and instruction (McTighe & Wiggins, 2012). I started with the biggest standards that I wanted my students to meet; the science standard relating to learning about animals and their adaptations and the writing standard about informational writing. I knew that we would end up hitting more standards as they fell in place naturally along the way, but these two standards gave my unit direction and purpose. I also formed the guiding questions for this unit which were: What animals share this land with us in Alaska? What can we learn about and from these animals? What adaptations do these animals have to survive in this harsh cold climate? And for me, how can we meet state standards through a meaningful place-based unit? I identified how I would know we had met the focus standards by designing an open-ended and flexible writing rubric to grade their final writing assignment. I also knew that I would be assessing my students along the way. Then, I spent the majority of my time planning out the lessons, materials and resources that I needed to teach this unit. I did not have a clear path from the beginning, but developed this unit emergently as I learned the knowledge and interests of my students, became aware of more resources available to me, and formed relationships with members of the community. As this unit was place-based, I took the standards that my students needed to meet and I taught them in context of our place —Alaska.

Art. Students explored Alaskan animals, both their physical characteristics and adaptations and their bioregions through a variety of art mediums. Art is an early form of literacy and a tool of both self expression and discovery (Hui, 2011).

Pastels. Students created Alaskan animal artwork. They chose any Alaskan animal that they wanted to draw and drew it on dark colored construction paper, exploring the concepts of shape, warm and cold colors, and repetition to create movement.

Frieze. We created a frieze of the bioregions of Alaska and the animals that live within each one on the wall outside of our classroom. The children decided what animals we needed to include, drew them based on real photographs of the animals, and put them in the correct bioregion on the wall. Our frieze grew as we learned about more animals, what they look like and where in Alaska they live.

Songs and Chants. One of the books that I discovered at the Noel Wein Public Library was *Alaska Animals We Love You* by LaVon Bridges and Alice Wright. This book was a treasure trove of poems, songs and chants about Alaskan animals. Most of these poems or chants teach scientific facts about Alaska animals and comes with an accompanying CD. We sang these songs to accompany lessons on specific animals, or just as we were transitioning from one activity to another.

Guest Teacher Scientists. One of the ways that I worked to connect my students, the learning and the community was by inviting in guest speakers from the local university that study Alaskan animals. According to Anderson (2017) “Another way to think of yourself in the classroom is as a “connector.” You are connecting students to the community and to each other, and helping them associate curricular content to their lives and where they live,” (ch. 10, para. 21).

Lynx. Matt Kynoch, a wildlife biologist at the University of Alaska Fairbanks (UAF) who studies lynx came in as a guest teacher. The students were so excited and got to ask him many questions. We learned about lynx camouflage, how scientists capture and track

lynx to study them, saw a video of lynx kittens, got to see a tracking collar and pet a lynx pelt.

Arctic Ground Squirrel. Helen Chmura and Cassie Duncan a postdoc and graduate student at UAF came in with a hibernating arctic ground squirrel. The children got to pet it, feel its cold body temperature and guess what it was. They thought it was a beaver at first, which goes to show the importance of hands-on experiences with animals in their local environment.

Group Research. After learning about many different Alaskan animals through read alouds, videos, songs, art and guest speakers, it was time for the students to start researching and becoming experts in one Alaskan animal that they would do their informational writing on. I narrowed the choices down to six different Alaskan animals: orcas, puffins, caribou, walrus, polar bears, and arctic foxes. I chose these animals because they represented such a large diversity of the animals in Alaska and were also high interest animals for the students. The students then decided which of these Alaskan animals they would like to become a specialist in. I choose to narrow down the choices so that students would not be alone in their research and would have a group all researching the same animal to support them.

iPad Research. Once the students had picked their group, they began researching their animals though EPIC! Books for Kids and Pebble Go on their iPads. I chose these apps because they had information on all of the animals my students were studying and both have options for the text to be read aloud to students so my struggling readers could still access the information. Students compiled what they learned on a group poster divided into four quadrants: what they look like, where they live, what they eat, and fun facts.

Library Book Research. I went to the Noel Wein public library and was able to check out 50 books on Alaskan animals for my students. I focused on getting books about the six animals they were specializing in, but there were hundreds to choose from and the children's section librarians (one a former teacher) were very helpful.

After my students had gotten as much as they could out of research with their iPads, I assigned them the task of reading the books that I had checked out from the public library on their animal and adding any new information that they discovered to their poster. I partnered lower readers with higher readers to read the books together.

Poster Presentations. Students then presented their posters full of information on their animals to the class.

Writing.

Rough Draft. I made a graphic organizer for my students to start writing their rough draft. It had space for a topic sentence, five supporting facts, and a concluding sentence. Students wrote four of these, one for each quadrant on their group research poster. I let students use bullet points and did not force complete sentences at this point. As an extension for my high achievers, they wrote more about the animal's babies, or human impact on their species. I taught mini-lessons on topic sentences, concluding sentences, table of contents, key words, cations, index, and glossary.

Publishing Writing. Once students were finished with their four or more rough draft papers, we moved on to writing our final draft or "publishing" our writing. I made a template for them on google slides with what should be on each page and digitally shared a copy with each student. I taught students how to insert text boxes, but let them problem solve and figure out most of it for themselves. Students wrote about their animal – at least four paragraphs complete with all of the text features we had learned about.

Field Trips and Partnerships. Due to Covid-19, our planned field trip to the Large Animal Research Station (LARS) was made into a virtual field trip. This expanded my ideas of possibility and we now also have a field trip to the Alaska Zoo in Anchorage scheduled, with a special emphasis on porcupines.

Sharing this Unit as a Resource

I plan to share this unit with other educators in the form of a website with links to resources, lesson plans, and personal examples that can be used directly or modified to fit the needs of the classroom and teachers. I will share this website with the Fairbanks North Star Borough teaching and learning department for teachers to access that way as well as share the link for it via social media.

Limitations

Playing the connector role was challenging at times, being a relatively new person in this place myself, just learning about the resources available takes time. Also, trying to follow up with people who didn't respond to emails to schedule visits was stressful and a hassle. In the future, I will plan partnerships and make connections further ahead of time as suggested by Anderson (2017).

Covid-19 limited some of the scope of this project that I had hoped for. Due do Covid, we were not able to attend our field trip to LARS in person. In February, I had talked to the director of LARS and proposed a plan to have the second graders write and publish a book about their trip to LARS and their expertise on arctic animals to sell in the LARS gift shop. COVID-19 made this not an appropriate task for me to expect of my students and their families who are also working their own jobs via distance learning. I am disappointed as this was such a unique opportunity and way for kids to give back and participate in the community. Another way that

Covid -19 impacted this project was finalizing it. I had planned for the students to invite in their families and the community members that we had partnered with for a writing celebration.

Covid-19 halted our progress on this project for six weeks, and we were not able to get together for community presentations and a finalized feeling.

Findings and Outcome

Increased Engagement

Throughout this unit, students were engaged and invested to an extent that I had not seen before in previous animal research I had done with my students that was not place-based.

Students were asking for more time to work on this project and were looking forward to our writing block at the end of the day. Students who had not enjoyed writing previously took fresh interest and became some of the students who took on the enrichment activities and pushed their writing farther.

Advanced Writing

The writing that my students produced exceeded my expectations. Every single second grader wrote at least four complete paragraphs with topic and concluding sentences. They all implemented the text features of a table of contents, headings, key words, index and a glossary. I know that they will better remember these text features and what they mean having implemented them in their own writing in a meaningful way. When teachers allow time for authentic writing, students are more active participants in their own writing process (Shaw, 1998).

Successfully Met Standards

Students used a simple writing rubric that we created as a class to critique their writing rough drafts and then used the same rubric to peer edit before it was graded by me. My class successfully met and exceeded the two main target standards that were the focus of this unit as

well as mastered many others in unexpected places, such as cultural standards and digital literacy standards, along the way.

Increased Awareness and Compassion

During this place project, students learned about the animals that share this land with us in Alaska. They empathized with the lynx when Matt Kynoch showed us the video of the researchers trapping it to put a tracking collar on it, “It must be so scared!” They all had favorite animals that they discovered and excitedly asked me to print out pictures of them so that they could carefully observe and draw them to add to our growing freize. The children gained awareness of their shared connection with animals to this place. Remen (1999) attests that, “When we know ourselves to be connected to all others, acting compassionately is simply the natural thing to do,” (p. 34). Through this unit, my students grew in their awareness of their state and the creatures that they share it with, deepening their relationship to both place and their place within the local environment.

Community Partnership

My hope had been that we would be able to write and publish a story to sell in the LARS gift shop. However, due to the Covid-19 pandemic, my students and I were unexpectedly separated at spring break for the rest of the school year before this aspect of the project could get started. I felt that it was an unfair burden to place on families this additional expectation without my ability to directly facilitate and coach each student through this process. However, this would be such an amazing opportunity for future students to be civic citizens in their community and contribute positively to their place. There are also a number of places around town that I am sure would love to carry a book such as this such as the Creamer’s field gift shop.

Discussion and Implications

This project was a success. Sobel (2004) states about place-based education, “Emphasizing hands-on, real-world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students’ appreciation for the natural world and creates a heightened commitment to serving as active, contributing citizens, community organizations, and environmental resources in the life of the school,” (p. 11). I found all of this to be true through this place-based project. Students met and surpassed standards of learning about animal adaptations and informational writing. Our learning took on a more personal meaning when it was connected to our place and we took our learning outside the walls of our classroom into our community through guest teachers, field trips, and partnerships. Students grew in awareness and empathy for their place and the animals that they share it with.

Every place-based project, through sharing common themes, is different in the details. This one occurred from January-March in Fairbanks, Alaska where temperatures were consistently below -20 degrees and the ground was covered in snow. Therefore, it was not practical to do many hands-on exploratory activities outside. We connected with the world outside the classroom in other ways by inviting in people from the community and taking virtual field trips.

This was my first place-based unit and through it, I grew as an educator. I learned that place-based units take a lot of time and extra energy, but they are rewarding and worth it. “It is true that limited funding, standardized testing, and overextended schedules are all real hurdles to implementation,” (Anderson, 2017, ch. 10 para. 1). There are a lot of excuses to not do place-

based units, but I learned that they are completely worth my effort as an educator with the engagement and learning that I saw in my students throughout.

Through this project, my role as an educator gained another facet, the role of connector (Anderson, 2017). I connected my students to the local community by forming partnerships with LARS, local graduate school students, and the Alaska Zoo. Playing this connector role was challenging at times, being a pretty new person in this place myself, just learning about the resources available takes time. Also, trying to follow up with people who didn't respond to emails to schedule visits was stressful and a hassle. In the future, I will plan partnerships and make connections further ahead of time as suggested by Anderson (2017).

Due to Covid-19, we were not able to attend our field trip to LARS in person and the students were not able to present their writing to an audience. Covid-19 halted our progress on this project for 6 weeks, and between overextended families and digital hurdles, we were not able to complete this project like I had envisioned even digitally.

Though there were some major challenges, implementing this place-based project was definitely worth the extra effort. I was blown away by the enthusiasm, engagement, and quality of work produced by my students. The learning felt meaningful, exciting and both the students and I looked forward to working on this project. On a deeper level, both my students and I gained in awareness and compassion for the animals that share our state. My students became more connected with the local community and aware of community resources through our experiences with graduate students, LARS, and the Alaska Zoo. Students were able to express their learning through multiple modalities of art, song, informational writing, and digital publishing. I will continue to implement place-based education in the future and plan to share

this project with other educators in the Fairbanks North Star Borough School District in the hopes that it will be useful for other teachers interested in place-based education.

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