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Learner-Centered Nature Walks

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Learner-Centered Nature Walks

by

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Museum Education: Childhood

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Abstract Page

Learner-Centered Nature Walks details the research of Heather van der Grinten in supplementing Junior Ranger Walks with a learner-centered mindset. The approach was intended to reflect her personal growth as a museum educator, demonstrate the viability of the Bank Street praxis of progressive education in an environmental education setting, and highlight potential growth for future Junior Ranger lesson-planning. The methodology involved experimenting with lesson plans, keeping a detailed reflection journal, and asking for voluntary feedback from peers, supervisors, and participants from June to September 2018. The samples of student work as shown in Appendix A and B were voluntarily given to van der Grinten to be used as part of her analysis. The research has found that asking for input as an initiation to an experience creates an immediate sense of engagement on the part of the participants. The research also concluded that inviting learners to create a visual artifact after a direct sensory experience provided an opportunity for reflection, group discussion, and an informal evaluation tool for the educator to monitor the program's effectiveness. These findings support the ideal conclusion of a Junior Ranger Walk – an empowered youth who has the skill and desire to engage meaningfully in public lands.

KEY WORDS: Learner-centered, Environmental Education, Place-Based Education, Public Lands, Junior Ranger

Dedication Page

Good things come in threes people say, so I will bestow my gratitude just that way. I dedicate my thesis to my professors, my pickle suits, and my people.

I acknowledge the Bank Street professors who modeled incredible patience, expertise, and passion. I leave Bank Street feeling thoroughly stretched in new directions, stuffed with inspiration and ideas, and fully supported to be myself. A special thanks to Marian Howard who shares my love and frequency of aesthetic experiences, Roberta Altman whose spirit continues to inspire me to take the time to be with children in nature, Brian Hogarth who has always been available to geek out about exhibits and museum design, and Cathleen Wiggins for always leading the department with a special mixture of grace, glee, and spontaneity. There are many more professors that I would like to name, but many more trees that I would like to save. Also, I owe a huge debt of gratitude to Robin Hummel who guided me through the harrowing world of Mathematics for Teachers and later kindly agreed to be mentor. This paper exists in its current state due in large part to her keen edits and sublime guidance.

I have to thank my growing group of supportive pickle suits – the National Park Service Park Rangers both at Gateway National Recreation Area and at Yosemite National Park for treating me as an equal every time I was an intern. Your fancy flat hats, shiny boots, and collective encyclopedic knowledge and enthusiasm about nature reminds me time and time again why I am excited to work alongside and on behalf of the National Park Service.

My gratitude overflows to my people who were there before graduate school, during graduate school, and will be there after – the Velocity Posse, to Liv and Virginia for helping along my science teaching skills, to my colleagues in the Bank Street Office of Financial Aid and the graduate suite staff, and my friends and family. Thank you for always believing in me, feeding me, and trusting me to find my way in the world.

Sharing is caring, and it is with great care that I share this paper and my gratitude to all the people who helped make it possible with the world.

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Prologue: How did I come to be doing this work?

“Heather, I get it, I finally get it,” my mother declared as her neck craned to take in the fullness of the scene – Cook’s Meadow, the heart of Yosemite Valley. The afternoon light bathed the iconic granite walls in a rich, warm glow. Yes, I enjoy working in beautiful places and feel rejuvenated by mountainous landscapes. Yes, in two years I turned my focus from arts education to STEM and environmental education. However, there is something to the work I have begun to pursue beyond the pleasure of scenic “office spaces.”

I relish the moments of grace and personal achievement that I experience in nature, whether it be reaching a mountain peak or discovering the intricacies of an exquisite flower blossom. This journey to becoming an interpretive ranger began in the summer of 2017 with my first Student Conservation Association (SCA) internship in the Bighorn National Forest in Wyoming. I greeted visitors to the Medicine Wheel National Historic Site and facilitated discussions about the cultural and ecological history in the region. It was in the Bighorns that I first found an Elephant Head blossom and I could barely contain my excitement over neatly stacked miniature pink elephant heads in a meadow at 8,000 feet in elevation. Then I worked with the Jamaica Bay Wildlife Refuge in New York City. Watching New Yorkers excitedly greet returning osprey with warmth and familiarity was a heartwarming reminder that even in the most urban of settings, communities are invested in sustaining populations of wildlife. I care deeply that as humans we have access to personal and social nature moments; an opportunity to better understand the earth beyond our own humanly constructed existence.

Public lands are important to me because the joining of those two words - public and land. I have now worked at three sites and with two agencies and every interaction with visitors impresses upon me the importance that interpreters hold as liaisons between the public and the resource. I love hearing, each in their own words, “I get it, I finally get it.”

Introduction

Who Am I?

For the purpose of this paper, I was serving three roles simultaneously in Yosemite National Park: intern, researcher, and field interpreter. Each role informed and influenced the other.

I was the art and nature intern, an opportunity made possible by AmeriCorps and the SCA. My primary duties and the focus of this analysis were Junior Ranger walks, youth-centered hour-long walks given twice daily at the Happy Isles Art and Nature Center through the summer season from June through early September. I was treated similarly to the Park Rangers - receiving training and coaching alongside the rest of the seasonal staff. Through my service with the AmeriCorps, it was my duty to be thinking of how I could better serve both the people and the public lands. A significant element of the Junior Ranger Program is developing a sense of stewardship toward National Parks and public lands. As the art and nature intern, I strove to provide positive, creative experiences that would encourage future stewardship of parks and help visitors feel welcome and proud about their public lands.

At the same time, I was a graduate student in the Museum Education program at Bank Street College of Education. As a researcher, I was collecting data on my own process: the feedback loop of developing, reflecting and improving on the Junior Ranger Walks. My work in the Museum Education program stressed the importance of student-centered experiences, social justice, and developing practices of a reflective practitioner. Through the opportunity afforded by the internship, this was my chance to put these ideas into action. This project reflects my desire to apply and adapt Bank Street praxis and philosophies to nature settings and the potential benefits the pedagogy offers the National Park Service.

Yosemite Valley field interpreters are responsible for staffing the main visitor center, communicating and monitoring bear safety protocols, orienteering and assisting visitors as needed, and developing, researching, and providing informative and engaging programming to

visitors of Yosemite Valley. The field interpretation team's mentality in the summer of 2018 was ideal for testing and trying out many of the ideas I learned in my graduate program. While most park rangers brought background knowledge in wildlife, geology, ornithology, botany, wilderness, land management, and other related sciences, I was the education expert for the summer, referencing developmental stages, pedagogical philosophy, and teaching strategies.

As a group, we were encouraged to work together, try new things, and to learn from each other. Colleagues would shadow my walks and provide observations and feedback. Subject matter experts were more than happy to assist in technical research and further explain concepts or identify specimens. The Yosemite Conservancy staff at Happy Isles Art and Nature Center welcomed my museum expertise and invited me to experiment in the nature center exhibit spaces, often providing supplemental art supplies to awaken the creative potential of my programming. While I was looking at my personal progress and the feedback from my participants, my summer research would not have been as successful had it not been for the Yosemite Valley team of field interpreters and the Yosemite Conservancy staff.

Goals of the Integrated Masters Project

My purpose was to shape youth-focused Junior Ranger Programs through the application of progressive education activities and principles. I was to observe and reflect on these experiences over the course of the 2018 summer season, May to September 2018. During my training period with the seasonal field interpreters, I had the opportunity to shadow experienced rangers' programs including Shelton Johnson, Sharon Miyako, and Erik Westerlund. Each of these rangers created programs with an individualized mixture of Audience Centered Experiences (ACE), thematic lectures, and sensory experiences. When I turned to developing my own curriculum for the summer I sought to marry the naturalist ethos I observed at the heart of the rangers' programs with learner-centered activities. In addition to the creation and adaptation of lesson plans for the Junior Ranger Walks, I would monitor my process and receive feedback from learners through voluntary feedback forms.

My hope is that this project provides the field with a reflective and analytical journal that contributes to the growing momentum behind the learner-centered approach in national park settings. This document has the potential to support park rangers as they incorporate and adapt more ACE into Junior Ranger programs. I also see a potential application in which teachers and museum educators could use the lesson plans, data, and reflections to inform their own preparations for introducing students to naturalist experiences.

How Does This Project Enhance Current National Park Service (NPS) Trends?

Throughout the two weeks of seasonal training, it was impressed upon me time and time again that the National Park Service is striving to adapt its methods of interpretation and education. In 2014 the National Park Service (NPS) published *Vision Paper: 21st Century National Park Service Interpreter Skills*. The intentions in this paper are coming to fruition as the NPS strives to adapt to contemporary museum practices. Throughout the training process, the trainers echoed the National Park Service's *Vision Paper* (2014), "Interpreters can shift their focus from being primarily a 'sage on the stage' to a 'guide on the side,' from being largely the content expert among audiences to being a facilitator, from being the sole authority to being a co-learner and co-leader" (p. 41). To accommodate this shift, two specific practices were emphasized during training: Audience Centered Experiences (ACE) and Facilitated Dialogue. These two techniques rely on audiences connecting their personal mindsets, backgrounds, capabilities, and knowledge to the experience at hand. These practices provide opportunities to shift perspectives by taking into account other audience members' viewpoints, and learning from the group rather than from one authority.

The resulting programs "focus more deliberately on *processes* of response and engagement *with* audiences than *products* formulated largely by interpreters for audiences" (NPS, 2014, p. 41). While correct information and thought-provoking themes were important to scaffold meaningful experiences, there was a drive throughout the training sessions for interpreters to create programs connected directly to audience members and to help them to build their

relationship to the resource through empowering their ability to learn and experience directly. As the *Vision Paper* (2014) ultimately concludes, “It is at that intersection where interpreters can advance a vision to nurture a citizenry of lifelong learners and support capacity for all to build a just society through engagement with natural and cultural heritage” (NPS, 2014, p. 51). My study engages directly with the next generation of stewards and applies progressive practices designed for lifelong learners to build their skills and capacities.

Literature Review

John Dewey, an American philosopher and educator, championed progressive approaches to education during the first half of the 20th century. According to Dewey (1980) *an experience* holds certain qualities: supports a greater progression of thought, freedom of choice within a context, social engagement, restructuring of perspective, containment, and consummation. Each element holds a vital characteristic that when assembled well creates a tangible synergy. As I prepared Junior Ranger programs, I kept in mind each of these elements, bearing the weight of the responsibility to these building blocks of meaning. Experiences that support progressions of thought are able to embed themselves within the comprehensive intellectual landscape of the individual; to fit within, what Dewey (1980) calls a greater progression of development. Freedom of choice affords engagement and self-sufficiency. Social engagement reminds students that they are part of a greater community. Then the restructuring of perspective, “for ‘taking in’ any vital perspective is something more than placing something on top of consciousness over what is previously known,” reflects the vital difference between acquiring new information and experiencing a restructuring of perspective (Dewey, 1980, p. 42). Lastly, experiences require containment and consummation. Experiences have a beginning, middle, and end, and in that end there is sense of culmination. The true richness, the ganache of greatness, is in the consummation of experience where the guest leaves having the sense of completing the process - the engagement, the restructuring, and now the sense of closure.

In addition to defining the tenets of *an experience*, Dewey (1938) declares the “importance of the participation of the learner in the formation of the purposes which direct his activities in the learning process” (p. 67). This participation communicates the learners’ desires and needs where “the occurrence of a desire and impulse is not the final end. It is an occasion and a demand for the formation of a plan and method of activity. Such a plan, to repeat, can be formed only by the study of conditions and by securing all relevant information. The teacher’s business is to see that the occasion is taken advantage of” (Dewey, 1938, p. 71). Therefore, in

order to effectively promote progressive educational theory on Junior Ranger walks, I needed, as per Dewey's mandate, to design a method to solicit the desires of participants as well as a praxis to satisfy them. Through first listening, then employing a broad base of knowledge in the subsequent activities, the challenge for the lesson plan is that I, the educator, needed to be prepared to incorporate, adapt, and utilize the input from learners in a meaningful way to the forthcoming experience.

The final consideration from Dewey (1980, 1938) is how to fold experiences into a greater continuum in order to promote effective education. Dewey posits "the basic characteristic of habit is that every experience enacted and undergone modifies the one who acts and undergoes, while this modification affects, whether we wish it or not, the quality of subsequent experiences" (Dewey, 1938, p. 35). The subsequent experiences within the framework of the Junior Ranger program could be another badge for the child's memento box or the development of a conservation-minded steward. If the only thing the Junior Ranger programs create in National Parks are collections of badges and pins, then the program has failed. In order for my experience, the one hour walk, to be more than just a fun time, it needed to present a potential habit, whether it be a mentality to bring to parks or an actual skill to practice during nature encounters. Therefore the conservation perspective or scientific skill will enhance subsequent activities and build upon the previous meaning making as opposed to the materialistic collection of tchotchkes.

Where Dewey addressed the role of experience in education, Nina Simon, director of Santa Cruz's Museum of Art and History, international museum consultant, and author, advocates for participatory practices that positions many of Dewey's components in a museum context. Simon (2010) first addresses the freedom that visitors hold within museum spaces and presents the question: "How can institutions serve the 'right' content to each visitor?" (Simon, 2010, p. 58). Right is defined, in this case, by the visitor and not the institution and it is more a question of whether the institution can provide a "recommendation engine" or "a mechanism by which visitors can retrieve content of interest" (pp. 58-59). Through this mechanism content becomes

personalized for the visitors, increasing their level of engagement in programming. Simon suggests that “most cultural institutions treat visitors like one-night stands; they don’t call, they don’t write, and they don’t pine” and that museums would better serve their missions when “the ideal personalized content doesn’t end when visitors leave the institution. Imagine a non-member: a person who visits once, had a great (hopefully personalized) experience, and leaves. What can the institution do to continue engaging with this visitor?” (p. 67). Dewey suggests experiences belong in a continuum in the same way that Simon recommends that institutions envision a singular program as an opportunity for relationship building with constituents. My challenge remained to design a program that can be *an experience* as well as part of an ongoing relationship with public lands and national parks.

Simon (2010) also specifically speaks to how participatory practices in museums deepen the engagement of educational programs: “When interpreters personalize the experience and invite visitors to engage actively as participants, they enhance both the social and educational value of cultural experiences” (p. 152). Participatory structures are defined by three distinct values: input from the audience, trust in their capacities, and receptivity of the facilitator to the inputs and capacities of those present (Simon, 2010, p. 183). These three values echo Dewey’s belief in giving learners’ active roles in defining their purpose and desires and having the institution or educator be the responder. However, it is not enough for the educator to listen and respond. There still needs to be a framework to move forward and to instill goals outside of the comfort zone or awareness level of the learner. “For institutions with educational missions, participatory techniques have the particular ability to help visitors develop specific skills related to creativity, collaboration, and innovation,” which Simon (2010) ties into a broader skill set of 21st century skills or “the skills necessary for people to be successful, productive citizens in a globally interconnected, multicultural world” (p. 193). The skills come from participatory techniques because they encourage visitors to interact with one another and take into account other people’s perspectives at the same time that learners are also evaluating new information.

The participatory structures create environments for collaborative assessment of ideas, innovative solutions, and thoughtful analysis, and therefore boost the educational value of programs.

Not only does Simon (2010) advocate for the use of participatory projects, but she also recommends developing various methods for evaluating the effectiveness of the programs. Unlike traditional education or programming, where the focus was content, "*participatory projects are about both process and product*. Participatory projects require people to *do* something for them to work, which means evaluation must focus on participant behavior and the impact of participatory actions" (Simon, 2010, p. 301). Simon (2010) also lists outcomes in categories of external – incidence of conversations –as well as internal – skill development or burgeoning relationships (p. 302). In addition to using evaluation as an ongoing informant for changes to lesson plans, Simon (2010) suggested, "*Sometimes, it is beneficial to make the evaluative process participatory in itself*" especially for participant directed projects (Simon, 2010, p. 302). Seeing evaluation as an opportunity for personal reflection as well as constructive feedback, the evaluation became a natural part of the activity arc of the program.

Paulo Freire, a Brazilian educator and philosopher, wrote extensively defending a critical stance on the relation of education and civic participation. Freire (1998) highlights the importance of communication styles in the role of education as a political statement. The direction and nature of communication in relation to learners will define the quality of the experience on the spectrum between democratic and authoritarian. Freire implores educators to think with nuance when speaking with rather than to audiences where "speaking "with" which is part and parcel of any democratic vision of the world" (Freire, 1998, p. 103). In speaking with and not at or to learners and by affirming and aligning to their personal curiosities, I as an educator strive "to instigate the student, who is a knowing subject, to be capable of comprehending and communicating what has been comprehended" (Freire, 1998, p. 106). As Simon (2010) listed trust of the visitors' capabilities as central to the institutional values of a participatory museum, Freire (1998) posits that it is not the act of transferring knowledge that creates a democratic educational environment,

but it is the empowerment of the learner to support their own intellectual journey. These acts “demonstrate that it is possible to change things, which strengthens the conviction of the importance of the politico-pedagogical task” (Freire, 1998, p. 110). If Junior Rangers are truly seen as the next generation of stewards for public lands, then it is essential that their programming demonstrates their capacity to influence and create real change. Knowledge transferred creates consumers of parks whereas knowledge discovered through instigation creates stewards ready to take ownership of parks.

Margaret Wheatley (2008), author and management consultant, describes her interdisciplinary connections in *Leadership and the New Science*. Following the political momentum of Freire in thinking of how communication structures support change in our society, Wheatley (2008) applies recently discovered scientific concepts to leadership and business management philosophy. Thinking of Junior Rangers as potential future leaders of conservation, Wheatley (2008) proposes that contemporary leaders, more broadly, learn from new scientific understanding to establish new ways of leading. “Many former planning advocates now speak about strategic *thinking* rather than planning. They emphasize that organizations require new skills. Instead of the ability to analyze and predict, we need to know how to stay acutely aware of what’s happening now, and we need to be better, faster learners of what just happened. Agility and intelligence are needed to respond to the incessant barrage of frequent, unplanned changes” (Wheatley, 2008, p. 38). Teaching children in a nature setting provides an incessant barrage from both participants and the natural world. The best planned activities can be put on hold at a moment’s notice if nature provides an opportunity for learning from wildlife. This ability to be flexible in the planning process also communicates to the learners the benefits of adapting to unplanned opportunities. However, even in the moment of departure from the plan needs to be mutually agreed upon as part of the overall plan itself. “People need to be connected to the fundamental *identity* of the organization or community. Who are we? Who do we aspire to become? How shall we be together?” (Wheatley, 2008, p. 146). Be present for nature was a

requirement of the tour program in the setting of the park. The identity of the tour group needed to encompass participation because it was through “the *participation process* that makes the plan come alive as a personal reality” (Wheatley, 2008, p. 69). When people commit to the plan, they commit to the reality that you are co-creating together as a group (Wheatley, 2008). In the co-created reality, the participatory instigation that allows each individual to personally grasp knowledge, share viewpoints, and collectively learn establishes a community of independent thinkers and actors. “We need leaders to understand that we are best controlled by concepts that invite our participation, not policies and procedures that curtail our contribution” (Wheatley, 2008, p. 131). My goals needed to make space for contributions from participants, to co-create the group identity and reality during the nature walk, and to utilize strategic thinking rather than strategic planning to be prepared to adapt to unplanned opportunities.

Wheatley (2008) while focusing on how leaders can be created from participatory structures, also addresses the importance of understanding the relationship between things. Lucy Sprague Mitchell, a progressive educator and one of the original founders of the Bureau of Educational Experiments (BEE), which later became the Bank Street College of Education, also supported the study of relationships. Mitchell’s (1934) seminal work *Young Geographers*, was an examination of her progressive geography curriculum with children at the BEE. Mitchell (1934), from a geographical perspective, advocates “exploring the ‘here and now’ that children grow in the capacity to discover relations - to think” (p. 14). Through relationships between things, children find meaning in the interconnectedness of environments. Being present in the context of Junior Ranger walks balances being present for the activities with being present for nature. Mitchell (1934) posits that field trips provide enough fodder to discuss ecology, geography, business, and history. Through the use of tool maps, “a map which is not an end in itself, but a means to better play and better thinking,” the maps become a space for reflection and processing of ideas (Mitchell, 1934, p. 17). Through processing ideas relationship discoveries can be made - especially when the appropriate materials for discovery are at hand. Tool maps allow

students to synthesize the observed. “Intake still means only half of the educational process” and Mitchell (1934) views providing appropriate tools for subject matter as well as developmental stages will lead to greater “outgo” or output of understanding (pp. 17-19). Therefore, the challenge presented by Mitchell’s philosophy in the context of Junior Ranger walks is the selection of tools that will provide for a variety of developmental stages meaningful reflection and outgo of observations acquired during the intake process in the field.

While Mitchell (1934) focused primarily on geography and map making, Jon Young, Evan McGown, and Ellen Haas (2010) collected their decades of experience in environmental education both individually as well as through the Wilderness Awareness School and synthesized their teachings into the *Coyote Guide to Connecting with Nature*. The *Coyote Guide* (2010) outlines core routines and tactics for both personal connection and understanding in nature as well as lesson planning guidance. Amongst Young (2010) the most potent core routines in relation to this project are the ideas of storytelling, the use of field guides, and choosing to reserve unstructured time.

Young (2010) recommends stories and storytelling for groups with verbal sharing to build collective knowledge as well as written and pictorial forms in an individual’s journal to assist personal insights (pp. 28-31). This balance of group and individual storytelling informed my intended balance on walks. First personal exploration to encouraged independent discoveries and built an individual’s connection to nature. Then the group reconvened, sharing each insight in order to build a sense of community.

Young’s (2010) approach to teaching with field guides begins with building curiosity in students and amplifying their thirst for knowledge with the answers from a resource (pp. 45-47). By using field guides and showing Junior Rangers my techniques, I sought to model how an independent naturalist could enhance their scientific knowledge of the resource.

Finally, Young (2010) recommended that educators reserve 50% of lesson time for unstructured wandering (pp. 40-42). The unstructured use of time sounds appealing as an ideal

state and in real life it felt daunting, in that I needed to trust nature to show up and show itself in an appealing way. Young (2010) responds to this concern: “Is it more important for information to be conveyed quickly and accurately or do you want the students to struggle with figuring it out for themselves? Go slow and leave time for information to sink in” (Young, 2010, p. 79). For all of the challenge—listening to learners and using their information to craft the flow of the walk—it was a greater question of my own self-restraint to slow down, to leave space for the unexpected, and to provide time for information to settle.

Where Young, McGown, and Haas (2010) provided a general crash course in contemporary environmental education, Joseph Cornell’s (1979) *Sharing Nature with Children*, stands as the revered classic for nature educators and enthusiasts. Cornell, author and nature educator, continues to work to bring a sense of wonder to nature for children and adults mostly through suggesting games and activities. “Each of the games creates a situation, or an experience, in which nature is the teacher. Each game is the mouth through which nature speaks—sometimes in the language of the scientist, sometimes in that of the artist or mystic” (Cornell, 1979, p. 8). Cornell (1979) emphasized in the game instructions how children can learn through play structures or through direct experiences with nature and avoids providing didactic scientific understandings. “Some of the games give us an inside view of the way nature works—the principles of ecological systems, for example—but not in a boring textbook way. While we play the games, we act out dynamically, and feel directly, the natural cycles and processes. Children understand and remember concepts best when they learn from direct personal experience” (Cornell, 1979, p. 9). The game that I adapted from Cornell (1979) is *Meet a Tree* where the original directions involve pairs of children in which one is blindfolded at a time and brought to a tree and are directed through a series of suggested sensory experiences: “*Rub your cheek on the bark... Is this tree still alive?... Can you put your arms around it...Is this tree older than you are? Can you find plants growing on it? ..Animal signs?...Lichens? ...Insects?*” (Cornell, 1979, p. 27). The pair returns to the starting place and when the blindfold is removed the child is challenged to

locate their tree. This activity provided the direct inspiration for an activity that encompassed all of my desired tenets of a successful participatory experience. I wanted to maintain the essence of *Meet a Tree*, creating a personal connection to a tree in the forest. My adaptation infused STEM principles of observation and recording with progressive student-centered methods of balancing personal discovery and group sharing.

In light of progressive educational philosophy, museum theory, environmental education background, the final task is to understand the NPS approach to developing interpretive programs. David Larsen served for thirteen years as a dynamic interpretive ranger, educator, and respected leader in the NPS. Larsen's (2003) textbook, *Meaningful Interpretation*, provides the groundwork for understanding interpretation's role separate from education, entertainment, and propaganda. "Interpretation is also a process - dynamic, flexible, goal-driven, leading both the heart and mind to understanding, appreciation, and on to stewardship. Done well, resources flourish. Done poorly, resources perish" (Larsen, 2003, p. 1). Knowledge of the resource, the audience, and the interpreter represent the building blocks of interpretive programs and it is the interpreter's role to "challenge the habit [of trying to give all the information] and ask, "What will be meaningful to audiences in the time they have to spend?" (Larsen, 2003, p. 37). The challenge occurs when Larsen (2003) envisioned that effective interpretation "encourages audiences to find themselves in the resources as well as engage, comprehend, and appreciate the perspectives of others" while still relying on the interpreter to have prepared a program that walks audience members through the tangible elements of the resource into intangible meanings and ending with a universal theme (p. 59). I found the expectation of planning both a lecture and ACE experiences within a one-hour tour challenging, especially when I wanted to focus on effectively communicating a universal idea. "The most compelling and broadly relevant meanings are universal concepts, ideas and notions that almost everyone can relate to, but also do not mean the same to any two people" and by artfully bringing attention to these universal themes, the program will contain a greater sense of significance and deeper meaning for a greater number of

participants (Larsen, 2003, p. 91). The recipe for a successful program grows lengthy: asks for a personalized content and direction from the audience, presentation of knowledge about the resource, connecting participant-provided direction and the information about the resource, and finally a delivery of a universal theme or concept. As Larsen (2003) himself stated, “Interpreters must respect visitors as independent travelers on this journey of discovery, free to choose the meaning of the resource for themselves and free to determine what paths their stewardship will follow” (p. 2). As an educator, understanding my role as a field interpreter, there is a need to balance my expectations with the will of the learners.

Method of Inquiry: Establishing Student Ownership of Program and Community Norms

My methodology was anchored within a set of values: listening to participants to empower their ownership of the program; providing space for the self to explore and a community to grow; and insisting on the importance of reflection as a tool to provide input and information for the learner's ongoing development. These intentions were the guiding force for how I planned lessons as well as how I presented and later reflected on them. For the lesson planning portion, I focused on building community norms and defining group goals. I also developed processes to capture and analyze reflections. There was a personal handwritten journal with post-lesson written reflections. I also developed a half-page feedback form that asked more targeted questions: age, what worked well, what could be improved, and any additional thoughts.

My focus was to create opportunities for *an experience* defined by Dewey (1938) as a contained and formative series of moments that will support the ongoing growth and development of the learner. My purpose was to put the learner forward and to keep his/her perspective at the center of my planning. In every step along the journey I questioned if I had given enough space for the learner to take ownership of their connection with nature.

Before I led any program, I received a crash course in all things Yosemite. While there were no explicitly communicated content expectations or guidelines provided by my supervisor, Erik Westerlund, there was a great emphasis given by Westerlund to bolster my personal naturalist skills throughout my training period. I shadowed ongoing programs to better understand the interpretive style of the NPS rangers and Yosemite Conservancy (YC) naturalists. I participated in seasonal ranger training where field specialists in geology, bear management, wildlife, botany, history, and ecology presented their topics and the trainees were driven to different iconic sites in the park. The background information provided during training supported my ability to be a flexible and accountable educator.

I identified two populations in my study: the person giving the walk and the people receiving the walk. I wanted to have samples of each population in order to hear everyone's voice

and consider a broad selection of experiences. My voice and reflections were noted in journal entries. During my first few weeks of walks I experimented with a Know-Wonder-Learn Chart and gave participants post-it notes to write or draw their thoughts in regards to a themed walk about trees. Know and Wonder were filled out at the beginning of the walk and Learn was the final reflection activity. While this practice worked well for surveying content acquired, this process failed to provide data about how activities helped with content acquisition or the general overall experience.

As I considered the feedback from the post-it notes and my reflections from giving the walks, I adapted my lesson plan; I moved away from a tree theme and took a broader approach to content and a more focused approach to learners. My theme became the word “Explore” and focused on how individuals defined exploration in national parks. With “Explore,” I would record visitors’ volunteered definitions and build a walk around how to achieve their goals in our time together. Throughout the session, I reinforced that their goals were the driving forces and that this walk was to assist in making their idea of exploration come to life. At the end of the walk we would return to our original definition list to reflect on our process and progress from the past hour. Within this framework there existed the ability to celebrate achieved goals while suggesting that exploration is never truly complete because of the ongoing potential to experience new things.

Directly followed the official end of the walk, I offered the half-page feedback form that asked more targeted questions. These sheets were presented as a voluntary opportunity to give me feedback for my graduate school studies after the conclusion of the walk. I informed everyone that I was studying at the Bank Street School of Education and that the walks were part of my learning process and that this was their opportunity to help me grow. The questions were presented as sentence starters where the learner completed the sentence: “I am ___ years old... Today I learned... One more or activity that I enjoyed was... If I could, I would have changed...” I encouraged parents to allow children to fill out their own forms and invited everyone who had

participated to provide feedback. The goal was to collect feedback from at least four walks per week. I collected 104 responses from 28 unique sessions between June 25 and September 3, 2018.

Once collected, I would log the completed forms in my reflection journal and eventually transcribe the responses into an online Google form. The Google form delivered the data to me in a spreadsheet format where I could then sort responses based on age, date, and time of day to analyze the responses.

I wrote my own reflections and anecdotes from the walks in a journal. While this practice was intended to only be paired with programs where I asked for feedback, I found myself jotting observation and reflection notes after every session. Notes included observations I had made about the group, utterances to me by participants, and my general feelings about the flow and energy level throughout the walk. There were also several journal entries where I asked a question or posed a challenge for myself to be achieved in the upcoming walks such as: How can I not feel pressured or rushed to include extra activities or information? How can I improve upon the sharing process? These questions informed my subsequent round of presentations.

At the end of the week I would review my daily notes and retype them into the computer. I discovered while retyping I added details that surfaced only after more time had passed. On my best weeks, I found time to prepare an end-of-the-week reflection that brought trends over time to the forefront.

Findings

Recipe for Success: Inviting the learners to co-create the experience

I am generally an ambitious planner and I found myself wanting to initially develop a lesson plan to masterfully sequence through all three words of the Junior Ranger motto, *Explore, Learn, Protect*, during the hour-long walks. By moving through the motto's trifecta, their cumulative essence provided skills and the values for intellectual engagement and stewardship. However, I struggled because each word of the motto is also a stand-alone and complex principle when beginning to work with inquisitive children.

On most walks when I mentioned all three words, I found that we invested all of the time exploring and ran out of time to fully embark on learning or protecting. I found that I could excel at facilitating exploration because it allowed me to be responsive to the learners and provided enough material for an hour. I would ask the gathered learners, "How do you define explore?" and from that invitation, the walk was then created on the spot to achieve those goals. The explore lesson plan was beautifully unpredictable because it was intended to be malleable to the wants and needs of the gathered learners on a specific day. Over the summer I was observed on two separate occasions by National Park Service interpretation rangers. As reported by a NPS Park Ranger, by defining explore with the group I was able to "set up expectations for the walk and got kids excited."

Walks would vary greatly based on the quality of suggestions, with low moments and highlights throughout the course of the summer. My reflection journal captured my elation over the afternoon walk on July 3 where we excelled with a great definition of explore that provided for a broad mental state, defined as being curious and keeping an open mind, in conjunction with tangible actions: look in crevices, look at rocks, look at everything, look for birds, butterflies, and bears. My activities were designed to be adaptable to any set of goals, and it was the inclusion of being curious and keeping an open mind that provided their definition a great trajectory for an engaging experience. The key to the success of that walk was that I found the focus of being

curious provided for more intrinsic and open motivation. Rather than betting their happiness on a bear sighting, keeping an open mind brought forth different observations and discussions. Curiosity contributed to a positive learning atmosphere for the community of learners because it asked them to be attentive to their own proclivities as well as what was present in the environment. Following this walk I included being curious and open minded into future definitions to inspire positive group norms for my community of learners.

Essential Ingredients: Play and Reflection

I found play structures to be an effective means to entertain and educate children. When I used play structures, I chose them to reinforce learning points and allow students to integrate ideas through active repetition of concepts. In one game, we built a small food web with plant objects and learners standing in for animals. When we took one item from the food web away I had learners act out the strain on the rest of the ecosystem. Four out of five learners who provided feedback from that walk recounted a positive experience with the game. Because they were given active roles and participation, they became invested in the food web in a new way than a verbal description could not provide.

My use of group sharing and storytelling came through my desire to provide an opportunity for learners to use their voices. I found often that I would become excited about the subject of our walks and would talk about specimens at length. By starting with an activity that had a role for the learner to speak, I made sure that my additions only supplemented the learners' perspectives and observations. One feedback form comment read: "Great job, balancing different learners and using many ways to teach (not just talking at us!)". The more I was able to talk with learners than talk at them, the more I saw the Freire's (1998) democratic vision come to fruition on my nature walk and boost the overall participation and morale of attendees.

I found that learners of all ages were always ready to engage when asked to create. When asked to be creators, I wanted to validate their perspective, observation, and view of the world. I valued the artifacts of their experiences and the evidence of how authentically children were

already engaging in the nature. When asked about what Junior Rangers learned, their responses included “How to sound map,” and “How to make a map.” When asked about a positive moment or activity Junior Rangers wrote “... I got to draw.” and “Art on the rock.” A NPS interpretive ranger reported that he was nervous when he saw me take out the bucket of crayons and paper mid-walk and was impressed by how engaged learners were with the activity.

Following the idea that learners enjoyed creating, data sheets and sound mapping provided reflective activities for sensory experiences: smelling, observing, listening. The reflective opportunity served as a way for me to analyze what children were taking away from the Junior Ranger Walk. For example, sound maps provided direct visual reflection for the auditory sensory experience. The group would stand in silence for approximately a minute and listen to their surroundings. Then the sound map invited the learners to record visually what they heard auditorily as seen in samples from Appendix A. The sound maps were then presented and discussed as a group. Five learners specifically noted that sound maps in their feedback as positive experiences, ten learners commented on listening as a positive experience, and many more Junior Rangers donated their sound maps to my collection of student samples from the summer (Appendix A).

The activity that I returned to with the greatest frequency and success was my adaptation of *Meet a Tree* from Cornell (1979). Where Cornell (1979) had pairs experiencing trees blindfolded, my activity provided data sheets for individuals to observe and record what they found to be significant. I even had one feedback form where an adolescent learner wrote that the moment or activity they enjoyed was “filling in the data sheet on trees.” Seventeen other learners mentioned trees, learning about trees, looking at trees, or drawing trees, as a positive moment or activity. I found that this activity provided space for individual observation, reflection through drawing, the application of connecting observation to a guidebook for further research, and an opportunity to build community through group discussions. Essentially learners modeled what naturalists do in the field on a daily basis and I found children were naturals at following their

curiosity and were compelled to add to their knowledge and learn from their peers, from guidebooks, and myself. I think the trick was that I asked them to whet their curiosity before I offered them information.

Conclusion: Filling Your Own Balloon

What does it mean to be a Junior Ranger? The term is as elastic as a balloon. It can hang limp and meaningless, like a small spineless creature. In that case Junior Ranger activities are fun ways to entertain the kids during a family vacation. The effectiveness remains at an entertainment value. A balloon takes shape because humans take in air from the environment into their lungs and use their skills and muscular powers to fill the balloon. There is effort. There can be a struggle. The balloon expands, taking on a shape or presence equal to the amount of effort that one is willing to put into it. For all of the writing Freire (1998) accomplished, he profoundly noted, “Democracy like any dream, is not made with spiritual words but with reflection and practice” (p. 119). Over the course of the summer, I grew determined to enliven the quality of engagement in nature that would ideally be part of a lifetime of engagement and, hopefully, stewardship of public lands. At one point I desperately wanted to inflate all the metaphorical balloons with my passion and my curiosity. But then I realized how nearsighted *my* hot air was. I reflected on my practice, my observations, and the feedback from participants. I listened and took a big step back. My learners took a big step up. I extended broad invitations to define their experience, to select their focus, to co-create our shared reality. I persuaded them to choose their own balloon and encouraged them to fill it with their own meaning. My research – an exploration of activities and reflection practices – reminded me ultimately of the incredible capacities that youth already contain to engage in mature observation and discussion. I needed *not to tell* them what to see, but *to create a space* for them to see and share and grow together.

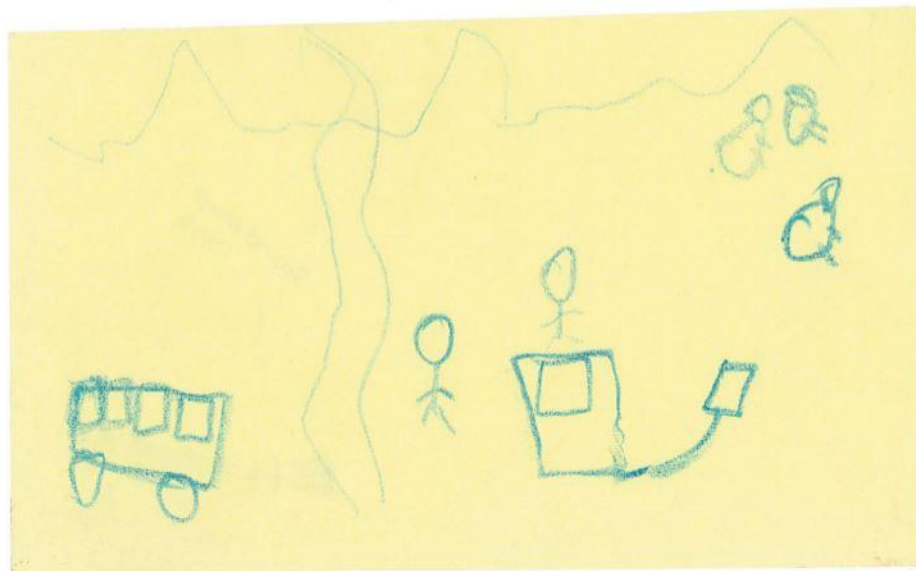
As an educator, I have this idealized view that the kindness, enthusiasm, and passion that I bring to my work is ultimately a courageous investment in my utopia of tomorrow. Freire (1998) acknowledged,

We have to be able, through a long human history, to distinguish ourselves, by our own decisions, as individuals among the whole of humanity, but still within the workings of society, without which we also would not be what we are. In truth, we are neither only

what we inherit nor only what we acquire, but instead, stem from the dynamic relationship between what we inherit and what we acquire. (p. 124)

While serving the public in a National Park during a time when ecology was perceived by some as an antihero of the economy, I looked to each Junior Ranger as a potential advocate and future colleague. By learning as a community, we embody the dynamic relationship – inheriting the legacy of conservation after we are invited to acquire our own meaningful experiences and explorations into nature.

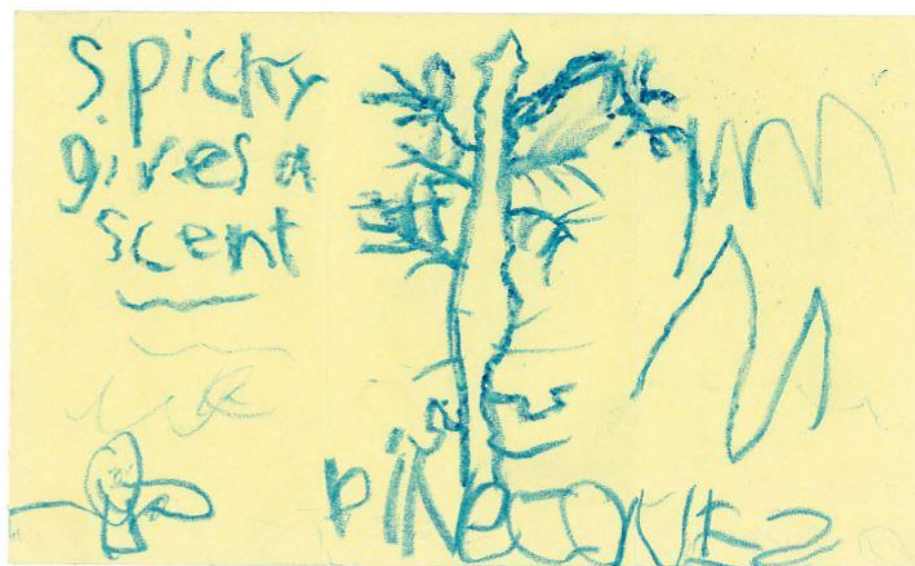
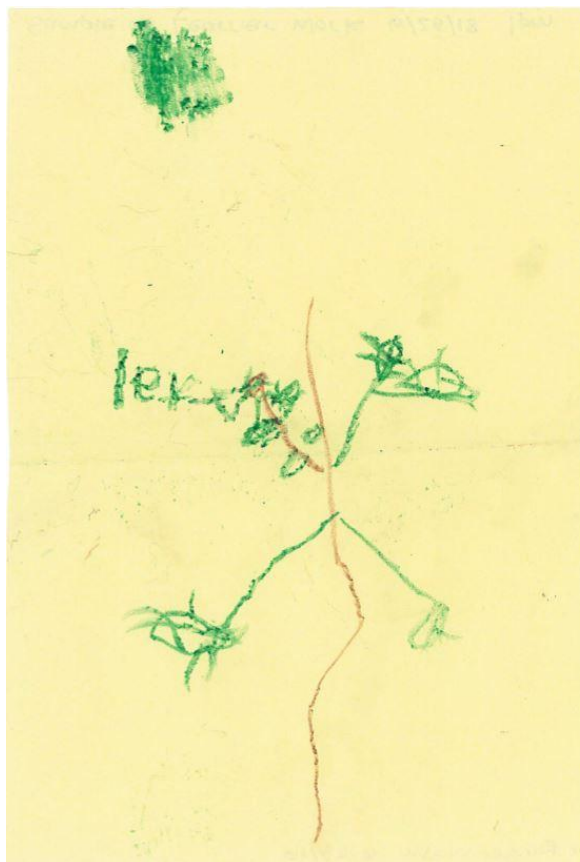
Appendix A: Sound Map Samples



Appendix A continued: Sound Map Samples



Appendix B: Tree Data Sheet Samples



Appendix B continued: Tree Data Sheet Samples



deep.
Big roots

Big
trunk

grows and pine cones
breaks in trunk.
small

has vertical

have low branches

1. Long Branches
2. You can hug the trunk.
3. Bright, Big, Green

Appendix C: Yosemite National Park Permission**United States Department of the Interior**

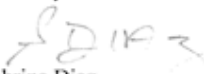
NATIONAL PARK SERVICE
Yosemite National Park
PO Box 577
Yosemite National Park, CA 95389

IN REPLY REFER TO:

Dear Heather van der Grinten,

Thank you for your work studying junior ranger walks in Yosemite National Park. You have permission to reference Yosemite National Park.

Sincerely


Sabrina Diaz
Chief of Interpretation and Education

Appendix D: Yosemite Conservancy Permission



December 6, 2018

To Whom It May Concern:

This letter offers permission for Heather van der Grinten to reference Yosemite Conservancy in her final thesis for Bank Street College of Education in New York City.

Sincerely,



Adonia Ripple

Director of Yosemite Operations

Providing for Yosemite's Future

3020 EL PORTAL ROAD, EL PORTAL, CA 95318 • T: 209.379.2646 • F: 209.379.2486 • YOSEMITECONSERVANCY.ORG

Appendix E: Individual Permission

Shelton Johnson, Sharon Miyako, and Erik Westerlund were sent the below text in an individualized email message. Each responded with consent to the use of their name in the document.

Dear Name,

As you know, I am a graduate student at the Bank Street College of Education in New York City.

As part of my graduation requirement, I am preparing an independent study on Junior Ranger Walks in Yosemite National Park. Independent studies are cataloged as part of the library collection and are downloadable via a live link on the catalog entry, making them accessible to Bank Street faculty and students as well as beyond the college. They will also be entered into an international database for wider circulation.

I would like to graciously request permission to mention you as part of my training experiences from this summer.

In order to mention your name I need written permission in the form of a positive reply to this email by December 19, 2018. If you have any questions or concerns please do not hesitate to contact me.

Thank you in advance for your consideration.

Warm regards and happy holidays,
Heather

References

- Cornell, J. B. (1979). *Sharing nature with children*. Nevada City, CA: Dawn.
- Dewey, J. (1980). *Art as experience*. New York, NY: Perigree Trade.
- Dewey, J. (1938). *Experience and education*. New York, NY: Touchstone.
- Freire, P. (1998). *Teachers as cultural workers: Letters to those who dare teach*. Boulder, CO: Westview Press.
- Mitchell, L. S. (1934). *Young geographers*. New York, NY: Bank Street College of Education.
- Simon, N. (2010). *Participatory museum*. Santa Cruz, CA: Museum 2.0.
- Wheatley, M. (2008). *Leadership and the new science*. San Francisco, CA: Berrett-Koehler.
- Young, J., McGowan, E., & Hass, E. (2010). *Coyote guide to connecting with nature*. Duvall, WA: Wilderness Awareness.