
WWU Masters Thesis Collection

Winter 2016

Creating a Community Hub for Natural History Education in the Methow Valley and Beyond

Mary Kiesau

Western Washington University, kiesau@gmail.com

Follow this and additional works at: <http://cedar.wwu.edu/wwuet>



Part of the [Environmental Education Commons](#)

Recommended Citation

Kiesau, Mary, "Creating a Community Hub for Natural History Education in the Methow Valley and Beyond" (2016). *WWU Masters Thesis Collection*. Paper 472.

This Masters Field Project is brought to you for free and open access by Western CEDAR. It has been accepted for inclusion in WWU Masters Thesis Collection by an authorized administrator of Western CEDAR. For more information, please contact westerncedar@wwu.edu.

**Creating a Community Hub for Natural History Education
in the Methow Valley and Beyond**

**By
Mary Kiesau**

**Accepted in Partial Completion
Of the Requirements for the Degree
Master of Education**

**Huxley College of the Environment
Western Washington University
Bellingham, Washington, U.S.A.
March 11, 2016**

ADVISORY COMMITTEE

Chair, Dr. Nicholas Stanger

Dr. Olin Eugene Myers

Master's Field Project

In presenting this field project in partial fulfillment of the requirements for a master's degree at Western Washington University, I grant to Western Washington University the non-exclusive royalty-free right to archive, reproduce, distribute, and display the field project report in any and all forms, including electronic format, via any digital library mechanisms maintained by WWU.

I represent and warrant this is my original work, and does not infringe or violate any rights of others. I warrant that I have obtained written permissions from the owner of any third party copyrighted material included in these files.

I acknowledge that I retain ownership rights to the copyright of this work, including but not limited to the right to use all or part of this work in future works, such as articles or books.

Library users are granted permission for individual, research and non-commercial reproduction of this work for educational purposes only. Any further digital posting of this document requires specific permission from the author.

Any copying or publication of this field project for commercial purposes, or for financial gain, is not allowed without my written permission

Signature: Mary E Kiesau

Date: March 11, 2016

Table of Contents

Introduction	4
Positionality Statement.....	4
Background.....	5
Rationale.....	7
Project Goals	9
Timeline of Project	12
Phase One.....	12
Phase Two.....	14
Phase Three.....	15
Literature Review	16
Natural History Education.....	17
Adult Education.....	18
Environmental and Adult Education in the Digital Age.....	20
Project Description, Results & Discussion	22
Phase One.....	22
Phase Two.....	32
Objective #1.....	32
Objective #2.....	37
Objective #3.....	38
Phase Three.....	40
Conclusion & Recommendations	50
Acknowledgements	53
References	54
Appendix A	57
Appendix B	62
Appendix C	65

I. Introduction

I created and integrated three different methods of natural history education for my final project of my Masters of Education in Environmental Education.

Building on previous graduate coursework as well as professional work as an environmental educator, writer and photographer, I created an online hub for natural history education and community building in the Methow Valley, with social media, website and blog components, while also maintaining and building an engaged community of learners with in-person educational programs and classes, and written educational pieces. My intent is to enhance natural history education and strengthen and support a community of adult learners, as well as to help me continue to build confidence, skills, knowledge and offerings as a professional naturalist, communicator and educator.

Positionality Statement

I believe that everyone is a student and a teacher, and that we all have a unique perspective and “voice” to share. I have a great personal interest in and passion for life-long learning, and I do not believe that people have to be “experts” in order to “teach” well. I believe some of my greatest strengths as an environmental educator are my love of life (biophilia), and ability to connect with people, evoke enthusiasm and share information that people find both interesting and meaningful in their own lives. Though I have for many years thought of myself as a writer, photographer and naturalist, or at least aspiring to be, I have only recently come to see myself as an educator, and even that is a stretch at times as I like to think that I simply facilitate observation, experiences and learning. By using the word facilitate I seek to practice

and embody Malcolm Knowles' guidelines for effective adult education, which I explain in more detail on pages 18-18. Knowles states that adults prefer instructors who adopt a facilitator role, and that facilitators are able to participate and share in learning alongside those they are teaching (Binder, n.d.).

Through my recent coursework, I have read and studied (thought and written about, discussed, questioned and explored) dimensions of learning and curricula that have helped me crystallize my thinking. For instance, Parker Palmer (2003) talks about a "pedagogy of the soul" (pp. 376). I agree with his sentiment that good education "enhances the human condition," (pp. 376-377) and that educators should advocate for connectedness - for people with each other, the earth, time and history, academic disciplines and so on (p. 380). William Pinar (2005) wrote about the lost art of study. I strongly agree with him in the importance of study and self-education. That is the process by which I have come to the world of nature history - through seeking out mentors, studying, self-teaching and group experiences. I believe teaching and learning, for both students and teachers, should be a heightening of consciousness and a cultivation of discovery, of self, and the world of which we are a part.

Background

The formulation of this project was a natural and holistic outgrowth of my Masters of Education in Environmental Education graduate coursework, and, before that, the professional progression which led me to seek formal continuing education. The foundation of this project is a synthesis of what I have shaped for myself into learning and growth from each of my graduate courses. In Environmental Education Foundations, I rediscovered my own core beliefs and needs in environmental education (EE), as well as many different approaches, or "currents" as

Lucie Sauv  (2005) calls them, to EE. In Conservation Psychology, I looked deeply into the effectiveness of certain conservation terms and the language we use. I learned how people’s values, perceptions and identity form their beliefs and shape their relationship to the natural world. I was also intrigued by the research and teachings of positive psychology and empowerment theory as a tool for meaning-making and engagement. In the discourse class of Research and Projects in Environmental Studies, I explored with enthusiasm the broad, historical and current context of human-environment studies, and dove deep into my own investigation of simultaneously “withdrawing” (Kingsnorth, 2013) and “reconnecting” (Macy, 2009) with a lengthy essay. In both the Assessment and Curriculum courses, I learned, taught and took to heart the methods and value of assessment and evaluation. In the Assessment course, I conducted an extensive interview process that provided great insight into the perceptions and needs of a core set of learners with whom I work in the Methow Valley. That process and those interviews flowed naturally into the major project of the curriculum course — an outline for a Master Naturalist curriculum for the Methow Valley — all of which contributed in various ways to the need and goals of this final project. The Literature of Nature & Place course introduced me to several inspiring authors and reinvigorated my love of writing and reading. That course is a large reason why I included writing components in my final project and sought to push myself to produce and publish my own place-based work. Spring Block was instrumental in putting myself in a mentorship role in which I was both student and teacher, allowing me to explore what I did and did not like or feel suited to with teaching (or, rather, facilitating, as I like to see it). During Spring Block, I was acutely aware of feeling uncomfortable and vulnerable at times, and I struggled with being “okay” with those insecurities — letting them be a natural part of who

I am and how I “teach” — but also realizing when weaknesses are not helpful and hold me back as an educator and facilitator. After Spring Block, I outlined areas I would like to foster, work-on or enhance, and many of those things are incorporated into this final project. Lastly, the Northern Botany Course allowed me to engage in my own natural history advanced education, and the final project for that course was an extensive blog and photo essay which became a launching point for this final Master’s Project.

Rationale

I have worked as the Educational Programs Director at the Methow Conservancy, a Methow Valley-based land trust, for nearly 11 years. At the onset of the creation of my final project, my rationale centered on my place-based knowledge of the Methow Valley and its natural history resources, as well as my large and ever-expanding network of nature enthusiasts and Methow Conservancy program attendees.

There is a specific lack of up-to-date and detailed Methow Valley natural history information online. A black-and-white quarterly publication called the “Methow Naturalist” is produced by long-time Methow botanist and naturalist Dana Visalli. Dana’s website (<http://methownaturalist.com/>) contains a lot of information, including a link to a PDF of the current Methow Naturalist (but not back issues), and a few flora and fauna species lists, but the website overall is cluttered, does not have a clear focus, and is not heavily used or promoted. Other websites specific to Methow Valley natural history education include the Methow Conservancy website (<http://methowconservancy.org/>), which includes 10 years worth of monthly organizational e-newsletters, a guide to noxious weeds, and links to video recordings and other resources from previous courses and programs. Overall, however, the Methow Conservancy

website is not specifically designed to provide natural history education. There are a couple other entities that have some education offerings online or in print, such as the paper newsletter of the North Central Washington Audubon Society, and the online plant field guide on the Chelan-Douglas Land Trust website (www.cdlandtrust.org/what-we-do/education/fieldguide/search). In terms of online forums or places to share information, there is a birding listserv for North Central Washington (which I am on), but very few people are on it, and it is just an email format.

There are numerous natural history classes and programs offered in the Methow, much (if not most) of which are already coordinated or run by me via my job as the Educational Programs Director at the Methow Conservancy. Primarily, there are four other people or entities who semi-regularly run programs or classes in the Methow: Dana Visalli, the North Cascades Basecamp, the Methow Valley Interpretive Center, and the North Cascades Institute. So, there is less of a need for in-person natural history education, but the desire for it is so great in the Methow that I sense that more, especially slightly different or new offerings, would be well-received.

A third element of my project involved providing public natural history education via a monthly column in the widely read weekly newspaper, the Methow Valley News. There has never been a regularly published column, feature or article on natural history or any other environmental topic, and I think the readership of the newspaper, which includes Methow Valley enthusiasts throughout Washington State and beyond, would appreciate and read such a column. In my results section I explain why this newspaper column has not yet come to fruition, though the writing component of this project came to life in other ways and still has great potential.

II. Project Goals

The goal of my Final Project was two-fold: (1) to further establish myself as a professional naturalist, communicator and educator, and (2) to create ways for people who live in or have an affinity for the Methow Valley to be more observant, informed, interested in and connected with the natural world and each other.

I did this through an approach that combined a new natural history education website with face-to-face educational offerings and attempts to create a monthly newspaper column. My specific audience was middle-aged adults who live full or part-time in the Methow Valley or have a strong affinity for the place, enjoy spending time outside and are curious about the natural world. My previous experience informed my belief that this audience is mainly ages 45-75; retired or semi-retired and relatively recent new-comers to the Methow Valley with some spare time and often some “disposal” income; typically, though not entirely, female; and have proclivities towards support for environmental causes, spending time outside (gardening, recreating, walking, etc) and joining group activities. My longer-term, hoped for audience would be broader than this group of people and include younger adults including parents with school-aged children, teachers, and other adults in the Methow who have either been in the Methow longer than 10 years and/or do not have strong environmental leanings. My intent was to enhance natural history education and strengthen and support both a real and virtual (online) community of adult learners. I wanted to help people see, establish or enhance their relationship to the Earth because when we deepen our relationship to the natural world, we deepen our relationships with ourselves and with others. I crafted this project in my own emergent, fluid

process of learning with the hope that it will help others engage with both the natural world and their fellow humans in a way that enriches their lives and benefits the earth.

The three primary objectives I accomplished which helped me reach my goals were:

1. Created an online presence by building the infrastructure for an extensive natural history website, and a social media identity on Facebook, offering useful and interesting localized natural history education. I began by using existing materials I and others had already created, and I built the website structure in a way into which I can, over time, add new content. The purpose was to support and enhance Methow Valley natural history education with more resources, better access to existing materials, and ways for learners to connect with each other.
2. Attempted to publish natural history-themed articles. For the scope of this project, my goal was to work with the Methow Valley News to create a monthly column in which I write a seasonally-focused natural history essay or article. An article was submitted to the Methow Valley News and the work of establishing a regular column is ongoing. In the future, I hope to publish work in regional magazines and other publications.
3. Prepared and gave two new natural history-themed public presentations. The program on my graduate school-based botany trip in western Canada was created and presented independent of the Methow Conservancy. The program on corvid mythology and folklore was created as part of my Methow Conservancy job, and given as part of a six-week corvid course I organized. See the results section for details on both programs. Outdoor field classes that I will lead are planned for the spring and summer months.

This project specifically aided in and advanced my teaching and professional development by requiring me to: research and create new educational offerings and seek venues for such work; research and write timely and appealing articles and blog posts; create online places for people to connect with me and vice-versa with natural history questions, sightings, notes from the field and the like; and learn and stay up-to-date with the best ways to reach and teach people in an online world, including how to reach and engage target audiences via social media and how to attract repeated visitors to my website and social media platforms.

The project also provided a new online venue, for naturalists and aspiring naturalists who live in or visit the Methow Valley to learn, share, and build community. The new website, and corresponding Facebook page, provide Methow Valley-based natural history education in a way that is not currently being done, and bolsters a growing community of learners by giving them a wide variety of resources and information, as well as ways to meet each other and attend events.

This final Master's project is a launching point for what could become a heavily-used natural history website for the Methow Valley and the Cascade region, and potentially, in the long-run, an independent professional path for myself, but that is not the scope of this time-limited endeavor. As currently envisioned, this project will give me a solid foundation for, over time, writing and publishing natural history articles, being invited to teach and speak outside of my job at the Methow Conservancy (I received two invitations to speak in other parts of Washington during the course of this project), and expanding the project website with more information and tools for interaction, such as an online sightings calendar and species profile

pages, as well as expanding the site focus to encompass more aspects of natural history as well as a broader region east and west Cascades.

III. Timeline of Project Methods

The main focus of my work in both time and energy was the creation of my project's first core objective - the natural history website. The general process I followed is outlined below, roughly chronologically (also see Table 1 on page 16). Some steps overlap, some were and are ongoing, and not every single thing I did is listed. This outline shifted and evolved from what I originally proposed. Interviews produced suggestions and feedback, some things took either more or less time than I had anticipated, and my own continued research, thinking and reflection changed some of my initial ideas.

Phase One

- A. I formed and expanded the proposal for the project based on a first phase of research, literature reviews, and project advisory feedback. I allowed the project to evolve and change based on ongoing feedback, shifts in my methods, and stakeholder concerns. For instance, when I shared the proposal with my Methow Conservancy Executive Director it was not received favorably, which was not anticipated by me, and changes to some elements of the initial proposal were made. See the Results section for more details.
- B. I researched, read and synthesized information from relevant academic literature reviews. Research, including books, peer-reviewed journal articles and other discourse pertaining to my final project provided some academic backbone and pedagogical theory for the actual product of my project. Using keywords such as "natural history education," "adult

environmental education,” “adult learning,” and adding “digital age” “social media,” and “online” to any of the first three phrases produced a wide array of academic articles. The academic rationale for my project was easily explained and upheld through many of the peer-reviewed articles I found (see Section IV, starting on page 16).

- C. I read and researched current news on online marketing, social media, attracting visitors to your website, and targeting adult audiences.
- D. I launched a Facebook page associated with the new website, and looked into creating Twitter and Instagram sites.
- E. I completed my online “Stories From the Field” blog and photography post about the Canadian botany course, and used the post as a launching point for a public presentation. See: <http://www.mountainkindnaturalist.com/canada-botany/>.
- F. I interviewed and asked for input and suggestions from people I know doing similar work both in this field and other fields (such as a friend who has done a marvelous job of this in herbal medicine), including not just website and social platform design and function; but also marketing, outreach, keeping readers and followers, and professionalizing services (See Appendix A on page 57).
- G. I researched and decided on a website platform as well as “theme” templates on the chosen platform. I brainstormed names for my site and tested them with friends, colleagues, and others.

H. I researched and reviewed other existing natural history web and social media sites for best practices, what I liked, did not like, content, the way sites were organized, how sites were advertised, how sites attract and keep visitors, etc. The sites on which I focused were:

- Isaac Yuen's: <http://ekostories.com/>
- David Moskowitz's: <http://davidmoskowitz.net/>
- Woody Wheeler's: <http://conservationcatalyst.org/>
- Dana Visalli's: <http://methownaturalist.com/>
- Jonah Evan's: <http://www.naturetracking.com/>
- Raven's Roost Naturalist School: <http://www.ravensroots.com/>
- The Burke Museum's Field Guides: <http://www.burkemuseum.org/fieldguide>
- Elva Paulson's blog: <http://elvafieldnotes.blogspot.com/>
- Ivan Phillipson's: <http://www.volcanolands.com/>
- Dennis Paulson's/Slater Museum blog: <http://slatermuseum.blogspot.com/>
- Chelan-Douglas Land Trust Plant Guide: <http://www.cdlandtrust.org/what-we-do/education/fieldguide/search>
- American Bird Conservancy: <http://abcbirds.org/>
- Robert Niese's: <http://northwestnaturalist.org/>

Phase Two

- I. I drafted and continually refined an outline of what the website would contain and how it would be organized.
- J. I created the shell and structure of the website. I looked into hiring help for design or complex areas of work. This area of work was much more difficult and time-consuming than I had initially planned.
- K. I compiled the relevant articles, photo essays and other works I had previously produced.

- L. I reached out to the Methow Valley News editor about a monthly natural history column. I sent him a sample of my writing; he and I picked a start date of early 2016 and I sent the first article (See Appendix B on page 62).
- M. I scheduled, created and gave one non-Methow Conservancy natural history-based public program during the course of this project. I also created and gave a new class for the Methow Conservancy (on corvids), and I scheduled a few early spring naturalist walks.
- N. I added existing, already-written content to the website, expanding my scope from initially planning to only use my own work to including several other sources and authors.
- O. I created some new content for the website (a book review, and several blog posts).

Phase Three

- P. I tested the website and social media platforms with a small sampling of prospective users, taking qualitative notes on their feedback (See Appendix C on page 65).
- Q. I worked with my employer, the Methow Conservancy Executive Director, to address concerns, adjust the project accordingly, and prepare a public announcement and roll-out of the website.
- R. I wrote the final project report, including what I learned and how I adapted during the course of the project with qualitative feedback, platform analytics on the Facebook page, and my own reflective process.
- S. I prepared a presentation of the final project to give to the project committee and other interested parties before the end of the winter quarter.

The chart below shows an estimation of when tasks were done. The individual letters reference the items in the list above on pages 12-15. If a month has any particular emphases the letters are **in bold**.

Table 1 - Timeline of Project Methods by Month

Summer	A	C	H	G						
Sept	A	E	H	K	I	G				
Oct	A	B	H	E	I	L				
Nov	A	B	C	D	F	G	H	I		
Dec	A	C	D	E	F	G	H	Q		
Jan	D	G	H	I	J	K	L	M	N	Q
Feb	D	G	L	M	N	O	P	Q	R	
March	D	N	O	P	Q	R	S			

IV. Literature Review

From an academic and pedagogical standpoint, I found many peer-reviewed articles that gave credence to the worthiness of my project, and provided insights into how and why I structured the project (the website and in-person education), as well as how I may continue to do this work in the future.

My literature research centered on three main areas that are relevant to my project.

1. The importance of and need for natural history education, and current principles for doing that well.
2. Adult education theory and best practices, including research on how adults learn, as well as some specific research on adult environmental education.

3. Education in the digital age and using online or new technology methods. My research in this area was couched in one or both of the above two areas: adult education and/or natural history education.

Natural History Education

From the sources I found, a compelling case for my project is apparent. Beginning with the need for more natural history education, the *Journal of Natural History Education* and its accompanying website is a site rich with relevant articles including “Natural History Renaissance” by Stephen Trombulak & Thomas Fleischner (2007). This article makes an impassioned call for more natural history education, especially place-based education that gives people a direct connection with and knowledge of the places in which they live. Trombulak and Fleischner reference Richard Louv, and like numerous articles that have cited Louv’s 2006 book focusing on children, *Last Child in the Woods*, or his 2011 follow-up, *The Nature Principle*, directed at adults, Trombulak and Fleischner remind us that there are dire consequences to people spending less time outside. They write,

People are less and less likely to have direct, intimate interaction with the natural world... Fewer people learn about natural history, which in turn creates a generation with even fewer people who can teach natural history. ...Thus a self-reinforcing cycle of ignorance is created. As less is learned, less can be taught, until even the knowledge about how to transmit the knowledge becomes a rarity. (pp. 1-2)

Their call to action is specifically directed at people who are able to teach natural history. They say we need to create a natural history education cycle “in which sharing knowledge leads to more sharing” (p. 2).

Authors Matthew Kolan and Walter Poleman answered Trombulak and Fleischner's call with their article "Revitalizing Natural History Education by Design" (2009). They state, and I agree, that natural history should be a "practice" (p. 30), much more than it is a subject, and as such natural history educators must design educational processes that are creative, transformative, connective and holistic (pp. 30-31). They outline eight principles for doing this, several of which, including "Start in Place," and "Emphasize Relationships," tie directly to my goals and objectives (pp. 31-37).

Adult Education

I also found some information on adult learning techniques and principles, both in general and with regards to environmental education. The work of adult education researcher and educator Malcolm Knowles came up in much of my research.

The extensive websites of eLearning Industry and CoreNet Global provide several useful articles. In CoreNet Global's PDF document "Adult Learning Techniques" (Binder, n.d.), numerous principles for how adults learn are covered, such as active learning, emotional connection, self-learning and more. The article highlights many adult learning theories that ring true to me. For example, stemming from Malcolm Knowles' work, "Learning is an act of participation. The motivation to learn is the desire to become an accepted member of a community of practice. It's about building and maintaining person-to-person connections that bring value" (p. 3). The article upholds the Knowles-based assumption that in adult learning it is best when the teacher or instructor adopts a facilitator role (p. 2). The article provides seven guidelines for effective facilitation, of which I agree with many, such as "The facilitator regards his or her own identity as a flexible resource for the group. The facilitator is able to express his

or her own feelings and beliefs that are not seen as judgments or the only way to think” (p. 2). And, “The facilitator sees each participant as a resource with experiences and knowledge. The facilitator is increasingly able to also become a participant learner” (p. 2). At the eLearning Industry website, Christopher Pappas (2013) succinctly summarizes Knowles’ theories, one of which is “Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life” (“Knowles’ 4 Principles Of Andragogy,” No. 3) In another article Pappas (2014) takes Knowles’ work a step further and provides suggestions for “How To Apply Adult Learning Theory to eLearning” (§ 1).

The journals *New Directions for Adult and Continuing Education* and *Adult Education Quarterly* provided two articles specific to adult environmental education. “Philosophies of Adult Environmental Education” by Pierre Walter (2009), reminded me of Sauvé’s “currents” (2005) in that Walter discusses five typological philosophical perspectives for adult environmental education (EE). This is similar to the way Sauvé outlined 15 different ways “of envisioning and practicing environmental education” (p. 11). While the two authors’ categories are designed differently (Sauvé’s more specifically and Walter’s more broadly), both authors provide their typology with the intent of allowing educators to, as Walter describes, “locate themselves within particular philosophies of environmental education” (p. 4). Additionally, these articles imply that environmental education can exist in many different ways, and that people often come to EE with very different perspectives. In the article “Adult Learning in Free-Choice, Environmental Settings: What Makes it Different?” Heimlich and Horr cite James Banks as saying environmental learning is “lifelong, life-wide, and life-deep” (2010, p. 58). Heimlich and Horr say this process is increasingly done in a myriad of free-choice and “horizontal learning”

settings (p. 60). They write that research in this field of study is important and needs to be expanded if educators are to enhance adult environmental learning opportunities. My project may be able to provide more information to this field.

Environmental and Adult Education in the Digital Age

The article “Adult Learning and the Promise of New Technologies” by Dejan Dinevski and Marko Radovan (2013) stresses that the development of online media and new technologies are increasingly key factors for adult learning for numerous reasons including flexibility of time, space, pace and methods; and collaboration and group learning (p. 64). However, it points out key weaknesses in digital tools too, highlighting the need for a variety of education methods and integrating new technology with traditional forms of education (p. 67), which is exactly what my project did.

Two articles that focus on environmental learning through computer technology are “Greening the Net Generation: Outdoor Adult Learning in the Digital Age” by Pierre Walter (2013), and “Natural History in the Digital Age?” by Jenny Rock (2014). Dr. Walter’s article acknowledges that adult education is increasingly happening on computer devices and that it is valuable to understand the learning styles and social practices of adult learners who use digital technology. His suggestion for integrating digital technology into outdoor adult learning, such as using photography, mixed-media and blog sites “to help learners interpret and understand what they encounter in the natural world” (p. 155) is exactly what my project sought to do. Rock discusses the question, “How does digital technology help or hinder learning about or practice of natural history?” (p. 10) and issues a call for papers devoted to exploring the theme in an online

forum. Once my project has had time to grow and create a following, I may be able to respond to Rock's question with a paper explaining what I have learned.

Two more articles provide examples of how particular digital tools, such as online forums and multi-media storytelling, can aid in education. In "Understanding Informal Group Learning in Online Communities Through Discourse Analysis" Mary F. Ziegler, Trena Paulus and Marianne Woodside (2013) say that informal learning happens in conversation, and they specifically examine the role of online forums as a place of meaning-making and group learning. "Digital Storytelling: A New Player on the Narrative Field" by Marsha Rossiter and Penny Garcia (2010) posits that learning is not just cognitive, but a more holistic process that involves the body, mind, and spirit, and as such the technology-infused method of digital storytelling (stories that combine multimedia objects including images, audio, and video) is proving to be a potent force in education for both educators and students. In the Discussion and Results section, I show how my two presentations were good examples of digital storytelling.

My research into using online media as educational tools also includes reading about the latest news on online marketing, social media, attracting visitors to your website, and making it visible to target audiences. This is an area in which I continued to research throughout my project, and will continue into the future. The Pew Research Center reported in August 2015 that "85% of adults are internet users and 67% are smartphone users." Their annual research shows 72% of online American adults use Facebook, and while they acknowledge that this number has "largely plateaued," adults on Facebook remain "highly engaged with 70% saying they log on daily." Other social media platforms, including Twitter, Instagram and Pinterest have seen

significant usage increases since 2013. For instance, 28% of online adults use Instagram, up from 13% in 2012 (Duggan, M., Ellison, N.B., Lampe, C., Lenhart, A., & Madden, M., 2015).

V. Project Description, Results & Discussion

The project work can be viewed in three phases, as referenced in the Timeline section above (Section III, page 12). Phase One included the various planning, research, interviews, and other preparatory work. Phase Two encompassed the actual “product” creation, including the website, the article for the Methow Valley News and the creation and giving of two new public programs. Phase Three incorporated the testing, feedback, reflection (my own and back to my literature review) and reporting. I discuss the project elements below in these three phases.

Phase One

My discussion of Phase One focuses on the time between the project proposal submittal to my advisers and the initial creation of the website. The project’s written plan accounted and allowed for elements of the project to change and evolve, especially the main “products” of the project such as the website. The Phase One work of presenting the plan to my employer, conducting interviews, researching other natural history websites and researching what type of website platform to use all influenced the evolution of the project work and outcomes.

Chronologically, before much actual project work had been done, it was important that I present the project’s written plan to the Methow Conservancy Executive Director (written as the MC ED from here on out) since the project was thematically related to my professional job but was something I was proposing to do on my own outside of my role at the Methow Conservancy. I anticipated the project would be viewed favorably and would be something of benefit to the Methow Conservancy, though I knew there would need to be an internal message strategy and

clear public communication prepared before the project website was made public. I emailed and met with the MC ED in December 2015 about my project plan and was surprised that the plan was viewed negatively by him. The seriousness of the MC ED's concerns lead me, early on, to adjust some of my project's intended methods and outcomes. For instance, I assured him that any Methow Valleys News article by me would have my Methow Conservancy title, and that I would not privately offer on my own any of the same things I currently do at work, such as naturalist walks. The website plans changed some as well, partly due to his concerns and partly due to a natural evolution of project work. The primary changes were that the site now (1) is purely educational and does not offer any services or seek to make any income and (2) does not solely present my writing and resources but is instead designed to compile and present natural history education and resources from numerous people and sources. Overall, the project goals, objectives and methods did not change drastically, but the MC ED's significant objections did impact the project in concept as well as in the amount of time and mental energy they took to manage, which is why I am presenting this information at the beginning of the "Project Description, Results & Discussion" section.

A key element of my "Phase One" work was conducting interviews with people whom I thought could give me some specialized insight into either my whole project or some parts of it. I talked to three individuals and one couple, all of whom know me professionally fairly well, and all of whom are self-employed educators of some type. These conversational interviews were immensely valuable to me personally and to the project - more so than I had anticipated - and I am glad I thought to include them in my preparatory work. My interviewees were:

- David Moskowitz, a professional wildlife tracker, educator, author and photographer.

David is a peer and is someone from whom I have personally taken classes as well as hired to teach classes for the Methow Conservancy. David started his solo career while still working for an organization where he was doing similar work. His website features a blog, his classes, his photography, and his two books. He also maintains professional Facebook and Instagram sites. I asked him for advice in general; how he created and maintains his own work and his following; and how much his website and social media help him get work and a following. Some of the key points I took from David were: stay salaried while building my own path; blend photography (or other media) with education; make the website very professional even if it means spending money; and figure out where I fit in the landscape of others doing this work (how do I highlight or sell not just content but my delivery of it and my personality)

- Susan Ballinger, a naturalist and educator in Wenatchee, WA. Susan is a former school teacher who now works for herself as a professional natural history educator. I met Susan several years ago when she contacted me for advice and information on how I organize and run some of my programs, specifically my six-week long courses. She has created and run several short and long curriculums, most notably over the last few years, the “Wenatchee Naturalist” Master Naturalist-style course, and she has developed a working relationship with Wenatchee Valley College and other local entities who hire her to teach. I have hired Susan to teach bird and botany classes for the Methow Conservancy. Susan and I also have a relationship through the Washington Native Plant Society (WNPS). After this interview, she contacted me to help her develop a local WNPS botany curriculum as a hired assistant.

I asked Susan about finding and creating small paid jobs as a naturalist educator, and she gave me a lot of practical advice. My main takeaways from Susan were: a monthly newspaper column is a big undertaking (she started one in Wenatchee and hasn't been able to keep up with it); and investigate any and all possible ways to get paid or create meaningful work.

- Rosalee de la Forêt, an herbalist and educator who works mostly in the “virtual” world of social media, websites, the internet and e-newsletters, and only partially in-person. I met Rosalee shortly after she moved to the Methow Valley about eight years ago. She was working for a body therapist instructor while establishing her own bodywork studio and herbal practice on the side. Since that time, she has given up her therapy work and created her own successful herbal medicine education business, almost exclusively online. She writes and teaches for a larger herbal education website in Washington while continually building her own educational website and offerings. I talked to her about this dual role as well as how she built a successful business and a strong online following, including branding, marketing, social media, and finding and maintaining interested readers or clients. Rosalee helped show me that one can successfully create their own professional path while also working for an entity doing the same style of work. She, like David, encouraged me to hone my unique voice but also to hone my purpose (with the website). Two other strong points from her were that e-newsletters are the best way to keep “clienteles,” and a diverse and active social media presence is key to building your audience.
- Benjamin (Benj) Drummond and Sara Steele, a husband and wife documentary team who run their own business from their home office in the Methow Valley. They create stories

about “people, nature and climate change... through photography, multimedia and web design.” Benj and Sara started with a small photography and writing business in the mid 2000s which is when I met them at a North Cascades Institute function in the Methow. They have created a high-caliber and well-respected company focused on conservation media. I talked to them about my entire project but specifically about the website concept, content, design, and creation. Benj and Sara provided important pieces of advice, including: e-newsletters are critical for keeping yourself relevant and building relationships; many of my website ideas are good but I should scale-back and start small then build in more elements as I see how the website is used and what people want; establish my social media platforms (with set hashtags even) and make the “forum” idea something folks do on Facebook; and I should hire someone to help with complicated elements of the website and/or integrating shopping into the site.

These interviews gave me a window into the real-life world of self-employed working naturalist educators. The conversations gave me a chance to bounce my final project proposal and ideas off of people who could understand it, and I often got very helpful information and practical advice in return. I was surprised to also receive overwhelming support and enthusiasm from all of my interviewees. They encouraged and inspired me with support for the overall project as well as my ability to do it well, and that was as helpful to me as their own stories. My short-hand notes from these casual interviews are in Appendix A (page 57).

In “Phase One” I created a professional Facebook page (<https://www.facebook.com/MountainKindNaturalist/>) and was able to maintain it with unique posts of my own as well as some sharing of other articles and websites. My goal was to make a high-quality post once a

week, but there were times, such as when I was working intensely on the website, that I found I simply did not have the time or capacity to put good self-made posts on Facebook. I also have not yet managed to prioritize my Instagram site and keep it active, though my project proposal only committed to making the Facebook page and said Instagram and Twitter sites were potential. I do not currently use Instagram or Twitter personally (I run the Methow Conservancy's Twitter site though), so I am not as personally invested in those sites as I am in Facebook. I have found Instagram challenging to use quickly and easily because I do not take photos with mobile devices and one can not upload images to Instagram on a computer. I need to take the time to decide what is the simplest method for me to process photos taken on cameras, then save them to a web or cloud-based platform, then use my iPad or iPhone to access images and upload them to Instagram. With regards to Twitter, I am still not convinced that it is an important place to build my audience. I need to do more research into how and why Twitter is used. I would also like to find an application that will post updates to all my social media accounts at once. I do not think not yet establishing myself or the new website on Instagram or Twitter has hindered my goals at this point, especially since the website has not yet been made public. I think by taking my time with Instagram I have allowed myself to think more about my ultimate goals in using Instagram and that when I start using it I will be better equipped to use it well and use it consistently. See "Phase Three" below for more details on social media results.

I also studied in detail the 13 websites that are listed on page 14 in the Project Timeline. Primarily, I scrutinized the design and layout of the sites, though I also reviewed their content, identified how they attempted to communicate with and retain readers, and looked at what "plugins" or applications they used. I took notes on what elements these websites had in common, and

particularly what aspects I specifically liked. This “literature review” of sorts was very helpful in that it gave me ideas as well as a clear visual framework from which to begin outlining my site on paper and then online. I enjoyed this process as well - it was fun and interesting, and I found some useful natural history resources as a bonus. Later, as I refined again and again my website layout and content, I found myself returning to my notes and looking at some of those 13 sites often. The critical “best practices” notes I made from this research were:

- Most home pages did not require a lot of scrolling down.
- Most home pages were uncluttered and clean with either large blocks of text or images, and a big photo banner, background or slideshow.
- On the best websites, the primary navigation menus typically had six or seven distinct main pages listed with short one or two word titles such as “blog,” “about,” “events,” and “resources.” These main pages and any drop-down menus from these areas were designed to specifically help organize the site and guide people.
- Home pages featured a few other important elements, like a newsletter sign-up button, an upcoming events button, or another key area of the website to which the designer wanted to draw attention.
- A search button as well as social media buttons were prominent on all the webpages.
- Blog pages feature several ways (usually in a side-bar) to view or search articles, such as by main “keywords,” secondary “tags,” month or other categories.

A few of the additional highlights I personally noted as things I was drawn to were:

- I really liked the Burke Museum’s “Explore” field guide-like section and designed my “Field Guide” area to reflect it.

- Links that go to other websites or take you away from your own website should always open in a new window. Links that go to articles or pages on your own website can open in the existing window on your website.
- The sites I liked the best had everything one needed to know or find somewhere on the homepage.

A large component of the “Phase One” work included (1) researching website platforms and hosts; (2) brainstorming website names, researching what was taken and what was available, and testing name ideas with people; (3) choosing a platform and learning how it functions through time-intensive experimentation, tutorials, help forums, and trial-and-error; and (4) to a lesser degree, researching online “inbound” marketing, which is marketing that by its nature brings people to you versus you going out to them. Inbound marketing is marketing that makes you easy to find, draws your target audience people in with interesting content, and keeps their attention because you are providing something they want or like. I quickly realized that I had woefully underestimated the amount of time these four elements of the project would take.

I spent several days brainstorming and then Googling possible website names. I decided early on that I did not want to use my name, Mary Kiesau, in the title because I wanted the site to focus on natural history and not me, plus the spelling of my last name is not easy to remember. I wavered between the terms “natural history” and “naturalist” and ended up favoring naturalist because it is shorter and even though it is a bit more specific, which is not always a good thing, I felt that natural history sounded too formal, like a museum. I also think many people do not know exactly what natural history means, and think that it has more to do with history than nature. The “Methow Naturalist” was already in use, and I wanted my focus to go beyond the

Methow eventually. I honed in on the Cascades and brainstormed names based around “Cascadia” and “Cascadian.” However, many of the names I thought of were already taken (there is a Cascadia Naturalist Association in Bellingham), and in internet searches any terms related to the Cascades and nature brought up the North Cascades Institute again and again. Northwest Naturalist was taken, and so on. In testing my ideas with friends, someone suggested simply using a unique place name in this area such as Pasayten Naturalist or Lost River Naturalist. My photography website and business is called Mountain Kind Photography, so there was some discussion about sticking with Mountain Kind, though I had lost the URL mountainkind.com several years ago. I continued conversations with friends and brought this dilemma up with interviewees. Benj Drummond and Sara Steele felt strongly that I should use Mountain Kind because I have already been using and branding it for many years; it is not specific to the Methow if I want to expand my scope eventually; and it is unique and easy to remember. I established Mountain Kind Naturalist as my website name and URL, with the hope that I may someday have mountainkind.com again. I also bought MountainKind.org, and several other names, including Cascadia Naturalist and Cascadian Naturalist in case I ever wanted to use them.

Prior to this project, I had worked with the Blogger and Weebly web design platforms. For this planning phase, I researched WordPress and SquareSpace. WordPress was recommended to me many times. Benj and other people told me that WordPress is the platform for 25% of all websites worldwide, and if I ever wanted to hire a professional designer, I would have no trouble finding help. I read extensively about WordPress and found numerous educational resources. I chose to use WordPress and then a whole new layer of work began,

including not just learning WordPress, but choosing and working with template “themes,” “plugins,” and other applications. The learning curve was steeper than I thought it would be and this element of my project took more time than I had anticipated. I quickly reached out for help from professional web designers, all of whom were very busy and did not have openings for new work until spring. I continued to work on my own. After I had worked on my WordPress site for one month through experimentation, tutorials, help forums, and trial-and-error I met briefly with a designer to get basic feedback and see if he could help with little glitches. He gave me high praise saying he thought I had done an excellent job, and provided some assistance with optimizing the photos for web use. Now, with the often frustrating, month-long process of learning the basics about WordPress over, I am glad that I did this work on my own and that I worked in a platform that was new to me. This self-taught method is how I have gained much of my naturalist skills, and while it can be time-consuming with many errors made along the way, it was far more useful and ultimately rewarding in the end. Now, I feel comfortable that I will be able to maintain the website on my own, understand the basics and the language if I do ever hire help for more complicated projects, and have the skills to use WordPress now and in the future for any possible personal or professional needs. I think the technical work of creating the website on my own directly reflects one of my core goals of further establishing myself as a professional communicator and educator. Initially I had seen the mechanical website creation work as a means to an end, but now having done the work and built the confidence and skills to continue the web and social media work myself, this element of the project feels like it was also a critical part of my personal and professional development and the project’s goals.

Phase Two

Phase Two encompassed the actual “product” creation of my three primary objectives (restated below in headings, and also on page 10). The “products” were the website, the article for the Methow Valley News and the creation and giving of two new public programs. Some aspects of my original proposal had evolved or shifted by this time due to my Executive Director’s concerns (as stated above on pages 22-23) and my own continued thinking, but the primary objectives and overall goals of the project were largely the same. For the next eight pages, I discuss the process by which the three objectives were accomplished.

Objective #1: Created an online presence by building the infrastructure for an extensive natural history website and social media identity. Using what I had learned in “Phase One” from the interviews, my conversation with the MC ED, the review of the 13 websites, and the WordPress tutorials and experimenting, I began to create the Mountain Kind Naturalist website (<http://www.mountainkindnaturalist.com/>). The current outline of the website content includes the following:

- **“Home”** is the main introductory page. It features a moving slideshow of four photos that highlight four pages on the site: the “About” page, the “Blog” page, the “Field Guide,” and the events calendar. Below the photo slider is some text from the “About” page, then a link to read more. Below that text are two rows of three photos that link to other areas of the site. In these photo boxes, I featured the pages, “Blog,” “Article & Essays,” “Photo Essays,” “Field Guide,” “Events,” and “Book Reviews.” Lastly, the “Footer” section, which appears on all pages, shows four “widgets”: the Facebook page feed, my Instagram feed (which doesn’t exist yet), a

mini version of the events calendar, and an e-newsletter (The Mountain Kind “Natural List”) address bar and subscription button.

- The “**About**” page is where I explain why I created the site and what my personal and community-wide educational goals are. I explain my current professional role and that this website is a project of my graduate degree, with web-links to both the Methow Conservancy and the Huxley Environmental Education Graduate program. I also include a short acknowledgements section thanking the Methow Conservancy, Dana Visalli and contributors.
- The “**Programs & Classes**” page provides a large calendar listing natural history, conservation or other environmentally-based programs, classes and other events being held throughout the north-central Washington region from many different entities (not just me or the Methow Conservancy). Events are color-coded by type and can be viewed by type. There is also a link to the “Contact” page on this page.
- The “**Publications**” page has four sub-pages that are accessible as “drop-downs” in the main navigation bar, or from the main Publications page. These are the Blog, the Methow Naturalist journal, Natural History Articles & Essays, and Natural History Book Reviews. The Blog contains pieces all written by me over the last few months. The Methow Naturalist page explains what the journal is, published by Dana Visalli, and provides an image and link to the current issue as a PDF. The Articles & Essay page contains clickable photo thumbnails with titles of previously written pieces, by me and others, that are general natural history, ecology or multi-species articles. Each piece’s author, original publisher and date are listed with the article. Some pieces open in a new window to the original source, some open in a new window with a PDF, and some open to a page on the existing site. The Book Review page

features a clickable photo thumbnail of the relevant book review. When clicked the book review opens in a new page on the site.

- The “**Field Guide**” page has six sub-pages that are accessible as “drop-downs” in the main navigation bar, or from the main Field Guide page. These are Plants, Birds, Mammals, Amphibians & Reptiles, Insects, and Geology. The main Field Guide page has some text explaining the section, including, “This Field Guide section includes species-specific articles and detailed profiles, ‘keys’ to help you sort and identify species, and other educational materials that befit a “field guide.” For more natural history writing, see our Articles & Essays page.” This page contains clickable photo thumbnails to the six current areas. Once on any of the specific field guide pages, there are more clickable photo thumbnails to articles, lists or keys. Like on the Articles & Essay page, each piece’s author, original publisher and date are listed with it. In the future, I would like to add more sub-pages, such as Fish, and dramatically increase the content of all of the pages.
- The “**Photography**” page provides a link to my separate photography website (www.mountainkindphotography.com), but it is mainly designed to be an area where I can provide photo essays or showcase my natural history-specific work that is featured in art shows and galleries. The first portfolio on the page is from my Mythology show. The entire website was designed to be visually engaging with attractive and clear photography - all my own unless otherwise stated.
- The “**Resources**” page is an extensive, hand-picked and well-researched clickable list of my favorite books, websites and other educational tools, by topic area.

- The “**Contact**” page opens to a simple page with the text, “Have a question? Want to report a sighting? Interesting in submitting articles, photos or other natural history news to this site? Please contact Mary Kiesau below or post a note on the Mountain Kind Facebook page (this is linked). Then there is a web-based contact form.
- Every page on the site is shareable with Email, Facebook, Twitter and Pinterest icons listed at the bottom of the pages. Blog posts and articles that are prepared within the website structure (vs. linking out to PDFs or other sites) all have comment sections at the bottom. There are also icon buttons to my current companion social media sites: Facebook, Instagram and my “natural history” GoodReads page.

I took my Executive Director’s concerns into consideration as I revised and refined the website’s layout, main headings and content. For instance, I did not include an “Offerings” page that would have listed ways to hire me, and instead I created the “Programs & Classes” page. I also took Benj Drummond’s recommendation that I significantly scale-back the website, specifically that I not provide a user-forum or phenology calendar at this time. He suggested not creating a web-based forum at all, and simply promoting the Facebook page as a place for interested people to share photos, ask questions and more. He said it takes an enormous amount of time, outreach and potentially money to get people to use web-based forums. I took Benj’s recommendation because I trust his experience and judgement and because the more I worked on the creation of the website the more I felt like I needed to simplify what I was doing. Also, the forum and/or user-created phenology calendar would require paid professional help to do well so I opted to not yet invest more money in the website. Ultimately, if my goal is to create ways for people to be more connected with the natural world and each other, I will need to continue to

explore creative and engaging ways for people to both learn and interact - in essence, to build community - and these user-based ideas will need to be revisited over time.

One of the main things I chose to do was to make the site far less about myself, though my presence and voice is still clearly there, and much more about natural history education in the Methow Valley. I found there was less pre-existing appropriate material that I had written, and more and more I realized that if I truly wanted to engage a community of learners then I needed to be inclusive in my community of “teachers,” or in this case contributors to the site. I explain my goals, purpose and perspective on the “About” page. I researched and made lists of articles and resources I could include on the site. With Dana Visalli’s support, I built links on my site to his current Methow Naturalist journal, some articles from previous journals, and many of the species lists and keys he has made (plants, birds, mammals, reptiles, etc.). I found other natural history articles that community members had written for various sources. I began to see this new website as a hub, a clearinghouse, for all the great natural history resources that already exist but either are not online at all, are not easy to find or are not in one place. New content is still important, and I did write a book review and create several blog posts, which simultaneously provided content for the Facebook page, but I felt my time was better used by putting good pre-existing materials on as many of my website pages as possible in order to show what the site intends to include and to be. I added species-specific articles, lists and keys to the “Field Guide” portion based on the way the Burke Museum organizes its “Explore” section. I put more general natural history, ecology or multi-species articles in my “Articles & Essays” page. A few articles are in both places and I think that overlap provides better access for readers, especially early on as people discover the site.

Even if I lessen my goal of creating my own identity, I feel like I gain far more by creating a place that is useful to the community and that creates a broader reach by including a variety of contributors. Every written piece is credited to the author and original publishing source and date. I contacted all the authors and sources to gain permission to include and reprint their work on my website. This, and negotiating with the MC ED, created a level of work that delayed the public release of the website, but I feel the website is stronger and more interesting than if it had only been my work.

Objective #2: Attempted to publish natural history-themed articles, specifically via a monthly column in the Methow Valley News. For the Methow Valley News article that I sent to the paper's editor as the first potential installment in a monthly (or quarterly) natural history column, I revised a piece I had written for a Methow Conservancy newsletter two years ago, again keeping in mind my Executive Director's concerns and knowing that this piece would meet MC approval (see Appendix B). I was very clear with the newspaper editor that this piece was from me as the Methow Conservancy Educational Programs Director and that we (the MC) would be happy to write the column free of charge. I also informed my Executive Director and Associate Director of all of this. They both seemed fine with this. At the time of this writing, however, the column has not run and I do not know if it will. The newspaper editor had initially indicated he supported the column, but after I sent him the sample he wrote to me with "I love the idea of a column, but not sure how quickly I can incorporate it space-wise and cost-wise. I will look at it again in next day or so." I wrote to him again in mid-February and did not hear back from him. If the newspaper column does not come to fruition, I can investigate writing

articles for the Methow Naturalist and submitting articles to other regional outlets, or I may simply write and post them on the Mountain Kind Naturalist website.

Objective #3: Prepare and give natural history-themed presentations. The third core element of my project was to prepare and give my own in-person natural history-based programs and classes. In my proposal, I had committed to giving one new program not associated with the Methow Conservancy. The description of that program was:

*The Methow Valley Community Center's Armchair Traveler series includes a free presentation by Mary Kiesau. Join her Thursday, Feb 18th at 7pm for “**Wild Plants and Wildlife in British Columbia and the Yukon - A Photographic Travelogue.**” Imagine traveling 4,000 miles through the remote and rugged land of British Columbia and the Yukon Territory, in just 17 days, stuffed in a rented Suburban with five other people, all their food and gear, and two enormous plant presses. Yes, plant presses - because the focus of your journey is to see and collect native plants. Every day. This is the story of Mary's wild ride through western Canada, complete with rugged landscapes, majestic wildlife, amazing native plants, and some unusual traveling companions.*

During the course of this Master's project, I ended up developing a second new program. I created and gave a two-hour class on corvid mythology for the six-week Methow Conservancy Corvid course, which I organized. The description of that program is:

***Feb 16th - Corvid Art, Mythology, Legends and Lore** with Mary Kiesau
Ravens and their corvid brethren could very well be the most written about and depicted creature in human stories, mythology and art. From ancient cultures to modern times, corvids have lived near and with humans in nearly every corner*

of the world. For instance, the area of the world in which we live is rich in lore and native art depicting ravens and crows. For many Northwest Indian tribes, the raven is a cultural hero who can travel back and forth from the present to unknown worlds, as well as assist people in shifting consciousness into varying realms. As such, Raven, a guide to the magical, mystical and unknown, is often called The Keeper of Secrets. Mary will share some of the rich history of legends, art and mythology surrounding corvids from Native American or other First People cultures; from the Far East; and from Western Europe from both the old Norse/Viking era as well as from the more recent “Christian” era of say the last several hundred years. The class will end with a sharing of experiences and stories from class participants.

As stated in my project objectives, I will schedule outdoor “walk-and-talk” style classes and field trips for spring and summer 2016 (three are already planned for early spring). These programs will be in my Methow Conservancy role as long as I am employed there, or potentially as a volunteer for the Washington Native Plant Society, which I have done in years past. Due to my Executive Director’s concerns about competition and community perception, while I’m employed at the Methow Conservancy I will not create any of my own personal offerings that resemble anything I might do within the realm of my paid professional job in the Methow Valley. I can, however, focus on providing programs and field-classes outside of the Methow Valley. In addition to naturalist walks and new programs I may develop, both of the two programs I created as part of this project could be repeated elsewhere. I already have two requests to give the botany program in other parts of Washington.

Phase Three

I view “Phase Three” of my project as the feedback and “next steps” section. Feedback and personal reflection was present throughout all stages of the project work and is weaved into other sections of this report above. Here, my discussion of feedback includes audience and contributor testing and feedback for the website, “insight” reports from the Facebook page, audience feedback from the two in-person programs, and my personal thoughts. I also highlight where and how elements of my project relate to my literature review.

The two presentations I gave were quite different, not just in topic, but also in my connection to them and knowledge of the material. The corvid mythology program required extensive research, with information that was almost entirely new to me. The botany program was based on my experiences and photos from an intense two-week trip the previous summer. Both programs were “slideshow” type presentations, heavy on visual images, but the corvid program was more academic and lecture-style whereas the botany program was more personal, show-and-tell and travelogue-style. The comments I received after the programs reflected my comfortable level in presenting the two talks. Many people told me that they enjoyed the corvid program and that it was clear I did “a lot of research,” but their comments were not enthusiastic. The botany program produced a plethora of positive feedback such as, “your talk was fabulous - informative and very entertaining with great photos;” “it was terrific on so many levels - the photography, social interaction stories, humor, and, last but not least, the botanical information;” “I loved your talk last night! The photos were fabulous, your notes/memory kept it factual, your anecdotes were funny and the maps helped tie it all together;” “you were a rock-star;” and “I think you could have a second-calling as a comedian - or a public speaker.” Personally, I felt like

I was equally comfortable with both presentations, but I clearly knew the botany material better because it stemmed from my own personal experiences. Both programs had written notes that went along with each slide, but the corvid program notes included long bits of information or even stories that needed to be read, and the botany program was more fast-paced and anecdotal.

These programs featured many elements of my literature review. In “Revitalizing Natural History Education by Design” Kolan and Poleman outline eight ways to revitalize natural history education, including “start in place,” “engage the senses,” and “re-establish relevance” (p. 31-33). To re-establish relevance, and counter the notion that natural history is a dusty old topic that does not have anything to do with us, they say “bringing natural history back to life... will only come when... it is reintegrated into our daily life. One way... is to re-emphasize our own participation in natural history...” (p. 32). I believe my botany program did this and excited people because they heard and saw a personal story. The corvid program did this as well by sharing stories and facilitating discussion about experiences with corvids. Both programs also made great use images, audio, and video, which speaks to “engaging the senses” (p. 33) in Kolan and Poleman’s work, and goes to the heart of Rossiter and Garcia’s “Digital Storytelling: A New Player on the Narrative Field” as well as several of the principles for adult learning. By weaving story-telling (complete with my own acting with different voices), the audio call of loons, and videos of Haida Gwaii elders recounting how “raven” stole the sun and created the first people, my presentations combined multimedia in a way that Rossiter and Garcia say is “increasingly essential... for adult learners” (p. 44). They note that “the unique feature of digital storytelling in the educational setting is that it offers an expanded array of media... for creative expression” (p. 44). They continue, “we have come to appreciate

that learning is not just cognitive, but a more holistic process that involved the body, mind, and spirit... and honor(s) multiple intelligences, not just linguistic or logical-mathematical intelligence” (p. 45). Lastly, numerous principles of adult learning theory were apparent in the presentations. Binder’s article “Adult Learning Techniques” posits that adult learning is “about building and maintaining person-to-person connections that bring value” (p. 3) and I think my programs created an open atmosphere for building relationships and inviting conversations in a way that adds meaning to the educational setting. Other key adult learning principles are “The facilitator sees each participant as a resource with experiences and knowledge. The facilitator is increasingly able to also become a participant learner” (p. 2). Several people told me after my talks that they noticed and appreciated that I strove to do this in my presentations - that I acknowledged that others in the room had knowledge and experience to share, and that I presented in a way that invited participation.

In my initial proposal, I had intended to not only test the website privately with a sampling of prospective users and stakeholders, but to also make the website public and have an early set of site analytics to report. Since I am still working with the MC ED to first show the website internally within the Methow Conservancy and then make it public with an explanation that eases his concerns about public confusion, I have not yet promoted the website publicly. However, I have shared it quietly with some of the project interviewees and a few prospective users that I trust to keep it confidential. I also met with Dana Visalli about it. He was very supportive and seemed to totally understand my goals and desires with the site. In an email he said, “I like your idea. Anything we can do to nurture awareness of the natural world seems worthwhile-- even if it is on paper (in my case) or online (in your case). Of course we both take

to the field when possible.” Dana’s comment reflects my intention of blending online and written natural history education with “face-time.” All of the initial responses from people were very positive overall. Below, I highlight some of the qualitative feedback comments as they relate to my goals and objectives, as well as how they connect back to my literature review. For the full account of all the comments see Appendix C starting on page 65.

Much of the feedback centered on the design and structure of the website, and very often reflected what I noted as best practices in my own review of similar sites (see page 28). Benj Drummond, who knows how to build and organize websites said, “Wow! That’s really an impressive start. ...The way you’ve made the Field Guide is a really user-friendly solution for the near term. Removing the extra social buttons on the top would be nice.” David Moskowitz said, “It looks like you are lined up to deliver a lot of great content! You might work on getting your home page a little less text heavy, with a more visual focus on driving folks to the various offerings or showing what your covering....leave the text for people who navigate to it perhaps?” Another person said:

I love it! It loads really well, and I like the format. I love the clickable calendar that you can look at by category and then the window of info when you click on a day with event is great. I like how it gives good info, with a link to the other website if necessary, but still keeps visitors on your site. The white text in the main photo slideshow is hard to read on my computer. I love the photo buttons in the collage at the bottom of the home page. That is really cool. It's fun the way they tilt when you hover on them.

Someone else added:

This is a very inviting site . . encourages browsing thru your menu. The keywords box helps me to categorize my interests. ...I like how you have subtopics in smaller print under the keywords, so I know where they will lead me. ...You've made a great framework. Because of the lack of ads and your design, I don't feel overwhelmed by clutter boxes screaming for my attention. Some websites just get overworked in the graphics.

Jason Paulsen, the MC ED said, "It has a really nice look and feel!"

Some of the feedback focused on the content and "voice," even noting differences between my personal intentions with the website and my role at the Methow Conservancy, which speaks directly to my goal of further establishing myself as a professional naturalist, communicator and educator. Sara Steele said, "I'm super excited by the articles and essays, field guides and resources page. So cool to have all that information in one place." A friend said:

It's professional. Your voice is strong. I would take a look at where you use "we" "us" vs. "I" "me" and make sure there is some kind of parallel nature to that. But the writing is great, engaging, interesting. You've got a ton of variety of sources. I think it is really good and I think it's totally separate from the Conservancy. That seems obvious and seamless to me. The only thing that left me wondering is if you should call your e-news something different since the Conservancy e-news uses that term in it's title? Like can you give yours a title, and then tag it as an email newsletter?

Another prospective user who is also a Methow Conservancy educational programs participant said:

The About section explains your purpose well. Your personal goals as a naturalist are different than the educational goals of the MC. I think that as the website grows people will see your character, style, observation skills, etc. I don't think those interactions fit with MC's website, nor should they. I guess I just mean that your website will reflect how you see and interact with the Methow.

More feedback highlighted the educational and community impact the website could have, which ties directly to my goal of creating ways for people to be more informed of and connected with the natural world and each other. Susan Ballinger said, "Wow - what a significant work you've undertaken, that will have a long-lived impact in our region. ...I am honored that you'd like to include some of my materials." A prospective user said, "There must be a way to link your events to Google calendar so people can instantly add them to their personal calendars." Someone else noted:

Your calendar is great . . . I forget to check every organization's events. ...Very nice collection of articles and essays. These get lost once published (elsewhere). I think there are so many talented naturalists in our valley and being able to publish some short essays quickly via your website might provide an avenue that otherwise wouldn't exist.

One person specifically thought about the community-building element of my objectives after she read about them on my "About" page. She seemed to understand and agree with my objective to provide a new online venue, for naturalists and aspiring naturalists who live in or

visit the Methow Valley to learn, share, and build community by giving them a variety of ways to learn, meet each other, and attend events. She said:

I really like your theme of connecting natural history with community. I think that's one of the big draws of the Methow Valley. My part-time neighbors are envious that I'm here and are pretty tech-savvy people, and I think they would look to your website from their west side homes to see what's going on even if they couldn't be here. It's easy for part-timers... to not [feel] a sense of community either. Your offerings would make them feel a part of the Valley.

This same person dove a bit deeper and asked about my possible next phase of website user participation.

How do you plan to fit in the sightings or observations of others? I see how I could turn in my observation on the Contact tab. Is there a place where various sightings could be grouped by month? That way I could see when the birds move up and down valley, when the bitterroots were spotted on Patterson last year, etc. If you archived the sightings by month then I could look back at January 2016 next January and see what was going on, how much snowpack, who saw wolf tracks where, etc.

These comments in particular mirror the points in the article "Understanding Informal Group Learning in Online Communities Through Discourse Analysis" (Ziegler, M., Paulus, T. & Woodside, M, 2013), which states that informal learning occurs in group conversations and that those conversations are increasingly happening online and in internet communities (p. 61).

Ziegler et al. note that shared learning helps people be a part of a community, and that informal learning happens when people with a common interest talk to one another (p. 62).

Based on all these comments, I examined or made changes with a variety of things, from font colors and reduced text on the home page, to changing my “e-news” subscription text to “Subscribe to Mountain Kind’s ‘The Natural List’ e-newsletter,” and I am giving more thought to how to create a place for people to post sightings, questions, photos and other phenological information. I think that user-collaboration piece will be the next big element after continuing to add content to the existing pages.

The website design and content speak to several other core pieces of my literature review. At the heart of my intentions is not just place-based natural history education but also an attempt to build and engage community (as mentioned above) in a way that creates a cycle of teaching and sharing so that people are more connected with the natural world but also enthusiastic about spreading that joy and knowledge, much as Trombulak and Fleischner advocate in “Natural History Renaissance.” In “9 Tips To Apply Adult Learning Theory to eLearning” Pappas (2014) talks about the principle of “self-concept” and says online adult education should “offer guidance and help, while still giving [people] tools and resources they need to learn on their own terms. Adult learners acquire new information and build upon existing knowledge much more effectively if they are encouraged to explore a topic on their own” (§ 2). The Mountain Kind Naturalist website is designed to do precisely this. Pappas goes on to say the “Readiness to Learn” principle can be applied to adult learning by utilizing “social media and online collaboration to tie learning to social development” (§ 4). He states, “As we get older, we tend to gravitate more toward learning experiences that offer some sort of social development benefit,” and social media sites are “invaluable tools [that] can help to not only build social networks, but collaborate with those who share the same interests” (§ 4). Joe Heimlich and Elaine Horr assert a

similar argument in “Adult Learning in Free-Choice, Environmental Settings: What Makes It Different?” (2010) where they state that people learn “through everyday tasks and life experiences” and that technology is reshaping the world in a way that is making it easier for “free-choice learning [to be] integrated with the rest of an individual’s life” (p. 57-58). Again, this is what my website and corresponding social media sites strive to do now and particularly in the future as I build more social media and online collaboration tools. The article “Adult Learning and the Promise of New Technologies” by Dinevski and Radovan (2013) stresses that online media is increasingly important in adult learning because the internet provides flexibility of time, space, pace and methods (p. 64). Lastly, Walter states in “Greening the Net Generation: Outdoor Adult Learning in the Digital Age” (2013) that digital technology should increasingly be integrated into environmental adult learning, with photography, mixed-media and blog sites “to help learners interpret and understand what they encounter in the natural world” (p. 155). This is exactly what my project seeks to do.

While at times I found it a struggle to actively and uniquely update the Facebook page, and I learned that it requires prioritizing time to create good, timely posts with photos and/or stories from the field, I did make 26 posts between Nov 8, 2015 and Feb 23, 2016. Without any paid advertising of the site I gained over 100 “likes” in less than a month and at the time of this writing there are 149. In reviewing the Facebook reported “insights,” it is clear that posts with photos have a higher average reach; more likes, comments and shares (L/C/S); and a significantly higher amount of post clicks than posts that only feature web links. My post with the highest reach was made just two days after I started the page. It was a post featuring my statement and four images submitted to the Confluence Gallery’s “Mythology” show. The post

reached 6,196 people primarily because one of the images, **a raven**, digitally manipulated to look like a painting or drawing, got shared 79 times. The posts that had the second and third highest reaches were (1) a photo album of 15 images from Winthrop's Thanksgiving fireworks show, and (2) a link to a Dwell magazine article featuring several of my architectural photos, respectively. Interestingly, neither of these posts have a natural history bent though they do feature my photography. My personal favorite posts, where I felt like I was providing clear natural history education with interesting and recent photos were:

- a photo album of eight images and captions where I and a few friends went **wildlife tracking**, which reached 366 people and had 50 total L/C/S;
- a photo of a **bald eagle** with some natural history information, which was only viewed by 112 people but had 40 likes and 13 shares;
- two images of **red crossbills** with my story of coming across them and some natural history information, which reached just 219 people and had 20 L/C/S, and;
- a photo album of six images of a **female common merganser** with natural history information, which reached just 216 people and had 14 L/C/S.

As I have stated, the social media development was an area I did not prioritize as much as I would have liked. Once the website is public, I will focus more time on building a local and regional audience on Facebook and Instagram. It is clear from the low “insight” numbers on my natural history posts that I need to do more research on when and how these new media tools work best, and how to integrate and incorporate them with the website. While I am glad some of my non-natural history posts received high numbers of views and interactions, and those people could be potential natural history audience members, I would like to hone my focus and

“followers” to natural history and Methow Valley place-based education. As stated above in the website discussion, my literature review provided insights into using social media as a tool to build collaboration, relationships and a community of practice among adult learners. I sincerely hope that this is something I will increasingly be able to accomplish as I release publicly, and continue to build, the website and the social media sites.

VI. Conclusion & Recommendations

There is a noticeable lack of Methow Valley natural history information and education online. There is no regular environmental or natural history feature or column in the Methow Valley News, and there is growing interest from adults for Methow-based natural history information, programs and community-building. My final project for my Masters of Education in Environmental Education addressed these gaps by providing new ways, particularly online, for people who live in or visit the Methow Valley to learn, share and build community around natural history. The project provided Methow Valley-based natural history education in ways that are not currently being done, and bolstered a growing community of learners by giving them a variety of ways to learn, meet each other, share information and attend events. Specifically, I created a new website and Facebook page with a wide variety of online resources, prepared and gave new face-to-face educational offerings and sought to publish a monthly newspaper column. My intent was to blend three different methods of education in order to enhance Methow Valley natural history education and strengthen and support a community of adult learners. I also sought to continue to build my own confidence, skills, knowledge and offerings as a professional naturalist educator and communicator. This project specifically aided in and advanced my

teaching and professional development, and it provided a significant new educational venue that will have lasting impact in the Methow Valley.

At the forefront of my recommendations to both myself and to anyone considering doing something similar to this project is to stay open to change and feedback, to be nimble and fluid yet focused on your ultimate goal or purpose, and to seek guidance and input from as many sources as possible.

Other “stakeholders” played a large role in my project. The people I choose to interview before the crux of my work started and the people who provided feedback to the first private release of the website provided practical and valuable advice as well as a confidence boost. The unanticipated need to delicately and diplomatically work with the Executive Director at my place of employment was a reminder that one is almost never fully independent and autonomous in their endeavors. Because my project was topically similar to my professional work, and I live and work in a tight-knit community, I should have better anticipated the time and conversations required to create a Master’s project that would be supported and accepted by my employer.

For numerous reasons, I found that I needed to allow more time for things than I had planned. This relates back to being flexible and open to change, but it is also a call for patience and acknowledging when and where to prioritize tasks and objectives, and potentially scale-back work, as I did with pieces of the website.

Lastly, it is important to remember that a large part of a Master’s project is not simply the goal or the project coming to fruition but the fact that the whole process is a learning endeavor. Often when I was slowed down in accomplishing tasks, it was because I had to invest far more time in understanding or learning something before I could move forward, such as how to create

a website on WordPress, or trying to maintain good communication and relationships while solving a critical issue, or researching corvid mythology and lore for several days so that I could present a good public program. When you are engaged in educational work, even natural history education, you must enjoy and value your own process of education because it is all part of the heightening of consciousness, and cultivation and discovery of self that is such a critical part of being human.

The reason all this work matters is, as Trombulak and Fleischner say, “As humanity becomes increasingly alienated from the natural world, a self-reinforcing cycle of ignorance has been created. ... The consequences of this loss of connection are deeply significant on many levels — from the individual psyche to cultural and political patterns” (p. 1). I crafted this project of teaching and learning with the hope that it will help people cultivate discovery, engage with both the natural world and their fellow humans, and open their hearts and minds in a way that enriches their lives and benefits the earth.

Acknowledgements

I would like to thank all of my Western Washington University professors for their input, time and guidance in my process of graduate coursework and this final project, particularly my project advisor Dr. Nick Stanger, the graduate program advisor Dr. Gene Myers, and my other core instructors, Wendy Walker and Dr. David Rossiter.

I also have immense gratitude for the Methow Conservancy staff and Board of Directors for supporting my desire for continued education and allowing me the time and space to attend graduate school while continuing to work for the organization. I also thank the organization for specifically supporting my Master's project done independently outside of work time.

This project and my personal growth would not have been nearly as strong without the guidance, suggestions and feedback from Susan Ballinger, Rosalee de la Forét, Kim des Rochers, Benjamin Drummond, David Moskowitz, Missi Smith, Jan Sodt, Sara Steele, Pitkin Thomas, and Laurelle Walsh. Additionally, the diversity and depth of information on the project website would not be possible without Dana Visalli and his Methow Naturalist journal.

I'm indebted to Graham and Marian Exall for providing me with a perfect place to study, work and sleep quietly in Bellingham, and I'm grateful to have them as new friends in my life.

Last but certainly not least, I must thank my partner, Merle Kirkley, and of course my mother, Carolyn Townsend, for levels of support that can not be put into words. Merle made immense sacrifices for me to attend graduate school and work on this final project, and his consistent support made my life easier. I love and thank my mother for always believing in me, in this endeavor and in everything, and for instilling in me a drive to do good work for people and the planet, always.

References

- Binder, B. (n.d.). Adult learning techniques. *CoreNet Global*. Retrieved from www.corenetglobal.org/files/summits_events/CallforContent/pdf/AdultLearningTips.pdf
- Dinevski, D., & Radovan, M. (2013). Adult learning and the promise of new technologies. *New Directions for Adult and Continuing Education*, 2013(138), 61–69. doi:10.1002/ace.20054
- Duggan, M., Ellison, N.B., Lampe, C., Lenhart, A., & Madden, M. (2015). Social media update 2014. *Pew Research Center*. Retrieved from <http://www.pewinternet.org/2015/01/09/social-media-update-2014/>
- Heimlich, J.E. & Horr, E.E.T. (2010). Adult learning in free-choice, environmental settings: What makes it different? *New Directions for Adult and Continuing Education*, 2010(127), 57-66. doi:10.1002/ace.381
- Kingsnorth, P. (2013). Dark ecology. *Orion Magazine*, Jan/Feb 2013. Retrieved from <http://www.orionmagazine.org/index.php/articles/article/7277/>
- Kolan, M., & Poleman, W. (2009). Revitalizing natural history education by design. *Journal of Natural History Education*, 3, 30-40. Retrieved from www.naturalhistorynetwork.org/journal/articles/revitalizing-natural-history-education-by-design/
- Louv, R. (2006). *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, NC: Algonquin Books.
- Louv, R. (2011). *The nature principle: Reconnecting with life in a virtual age*. Chapel Hill, NC: Algonquin Books.
- Macy, J. (2009). *The spiral of the work that reconnects*. Retrieved from

<http://www.joannamacy.net/theworkthatreconnects/the-wtr-spiral.html>

Palmer, P. J. (2003). Teaching with heart and soul: Reflections on spirituality in teacher education. *Journal of Teacher Education*, 54(5), 376–385. doi: 10.1177/0022487103257359

Pappas, C. (2013). *The adult learning theory - andragogy - of Malcolm Knowles*. Retrieved from www.elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles

Pappas, C. (2014). *9 tips to apply adult learning theory to elearning*. Retrieved from <http://elearningindustry.com/9-tips-apply-adult-learning-theory-to-elearning>

Pinar, W.F. (2005) The problem with curriculum and pedagogy. *Journal of Curriculum and Pedagogy*, 2(1), 67-82, DOI: 10.1080/15505170.2005.10411529

Rock, J. (2014). Natural history in the digital age? *Journal of Natural History Education*, 8, 9-11. Retrieved from www.naturalhistorynetwork.org/journal/articles/natural-history-in-the-digital-age/

Rossiter, M., & Garcia, P. A. (2010). Digital storytelling: A new player on the narrative field. *New Directions for Adult and Continuing Education*, 2010(126), 37–48. doi:10.1002/ace.370

Sauvé, L. (2005). Currents in environmental education: Mapping a complex and evolving pedagogical field. *Canadian Journal of Environmental Education*, 2005, (10) 11-37.

Trombulak, S.C., & Fleischner, T.L. (2007). Natural history renaissance. *Journal of Natural History Education*, 1, 1-4. Retrieved from www.naturalhistorynetwork.org/journal/articles/natural-history-renaissance/

Walter, P. (2009). Philosophies of adult environmental education. *Adult Education Quarterly*, 60(1), 3–25. doi:10.1177/0741713609336109

Walter, P. (2013). Greening the net generation: Outdoor adult learning in the digital age. *Adult Learning*, 24(4), 151–158. doi:10.1177/1045159513499551

Ziegler, M. F., Paulus, T., & Woodside, M. (2013). Understanding informal group learning in online communities through discourse analysis. *Adult Education Quarterly*, 64(1), 60–78. doi:10.1177/0741713613509682

Appendix A

Below are notes from the four interviews I conducted.

David Moskowitz, 11/2/15

- stay salaried while slowly building content
- he had a major product with the book which launched his website and visibility. Was very important in ability to do programs and make name for himself
- Yes, blend photography and education — strongly encouraged me to integrate photography site into new site - everything should be all in one place
- spend \$ to make it super professional and smooth, even if it's still on WordPress or Weebly
- Dave doesn't do a ton of outreach now - the book brought its own visibility/outreach
- to keep interest up (his own and other people's), he creates new projects for himself (OR-7, Mtn Caribou, etc.), and works to get funding for them from various sources.
- Thought the phenology calendar idea was a great way to involve people and keep them coming back.
- He'll do a certain number of pro-bono programs for nonprofits but otherwise charges; rates vary on the entity, plus travel.
- The more you charge the more value people perceive. I need to figure out where I fit in that landscape.
- I should contact NCI about leading a class. (He sent a note to their program person on my behalf, and I need to follow up.)
- We talked about me not feeling like an expert and not wanting to sell myself that way. He said use something like, "come explore with me."

- I need to remember that I'm selling content but I'm also selling MY delivery of it and personality.
- I asked him how he evolves and learns with his teaching.... He said he doesn't do formal post-class evaluations. Says he likes to teach in the zone of proximate learning and that you are assessing and evaluating all the time.
- Suggested I look at a friend's website - NatureTracking.com - very well laid out and attractive
- I can make little nuggets into e-books
- offer guided naturalist hikes; flora and fauna surveys...

Susan Ballinger, 11/12/15

- a once a month newspaper column is a lot of work! It's a big undertaking. She started doing that too, and has fallen behind.
- "You have great people skills." "You've got connections." "You know the Methow like the back of your hand."
- You have to find a way to get paid. NCI courses? Connect with Okanogan Outdoors - maybe they can host my website? (I think she meant cross-link to it). It's funded by the Confluence Health. Andy Dappen of Wenatchee Outdoors runs it. (I looked into it - don't see any money, or much visibility in it right now)
- Could teach out of the Omak campus (George Wooten does). Continuing Education doesn't pay well - try to be an "adjunct."
- Michelle Gedrose runs the continuing edu program at Wenatchee Valley College. I could do 2-3 day courses through them.
- Look into teaching for Roads Scholar (Dana Visalli does this).

- I could teach for the Native Plant Stewardship Program via WNPS. (She called back asking me to help her create a botany curriculum for the Wenatchee program).
- California Native Plant Society has a good natural journaling curriculum.

Rosalee de la Foret, 12/31/15

- Starting blogging in 2007 (Methow Valley Herbs). Thought it would just be a place to share personal writing. It has evolved a lot. In 2014 she hired a graphic designer to make a logo/brand, and now she pays various people to run her website, social media and create visuals and e-books.
- Having a unique voice that clearly communicates to your ideal audience is the best way to keep people. “Who is your ideal audience” she asked me.
- What is your underlying purpose? Her’s is to get people to sign up for her newsletter (to build a clientele in order to make \$), so everything she does is designed to get people to sign up for her newsletter.
- Her income is now a mix of online courses, one-on-one client work (in person and remotely), partnerships with other entities where she gets a % of sales for promoting stuff, in-person classes, and her side work with HerbMentor.
- Great partnership with HerbMentor. They are great with marketing and web work, so she benefits from learning from them. But they really like that she does her own private thing too. They say the better she looks and the more she does, the better they look. They don’t see it as competition.
- Use a SEO program. SiteBuilder helps with keywords and traffic to your site; gives options for web titles too based on your keywords.

- [upwork.com](https://www.upwork.com) is where she found her logo and web designer. You describe what you want and people bid on it. You can see their profiles/portfolios.... (I looked into it)
- Someone else creates her e-books. She did for years, and I could - they are just PDFs, but other people can make them look better. She just gives them a Word doc.
- For years, she read social media and newsletter stuff. Now, she pays a social media manager to run her social stuff - but it's still just a tool to get people to sign up for her newsletter.
- She's taking a copyrighting course now - how to create sales pages and engage with people with different styles and writing.
- She struggled with building her website for years. Finally, she just started doing it everyday - first thing in the morning for 1-2 hours.
- Who is your audience? What are they looking for? What are they interested in? What "product" do I have to sell them?
- She said to also think in more general related topics such being outdoors, recreation, etc. to appeal to people that don't think of themselves as Naturalists.
- There are tons of resources now about creating web businesses.
- Thought I should be on FB, Twitter, maybe Pinterest, and of course Instagram.

Benjamin (Benj) Drummond & Sara Steele, 1/6/16

- We spent a lot of time talking about and breaking down what I'm envisioning/planning, and to some degree why.
- Sara thought the newspaper column could potentially be fundable by a private grantor (another friend thought the whole project would be fundable by certain private donors).

- the thing that helped them a lot early on, and still does, was making a newsletter. Keeps yourself in front of people and helps build a relationship. Just put it together by recycling content you've already put on your website (blog posts, photos, etc.)
- Benj thought including a "forum" on my site was a huge effort and it would take a lot of time and work to get people to use it. Better to just do that sort of real-time, quick communicating on Facebook. I could even make a FB group, and potentially have all the FB posts filter into the website somewhere so that it's in both places.
- The "species profile pages" or "field guide" as he called it would be hard to do well too he said. That's a piece I should really look into hiring someone for.
- The other bits seem to be divided into two categories: (1) publications (articles, personal), and perhaps best done in a blog style platform, and (2) offerings (classes, services, photography).
- Benj said over and over that the whole thing was just too big to do all at once. Really encouraged me to scale-back and start small. He suggested I:
 - pick a domain (they both really loved sticking with Mountain Kind over anything else I suggested. Said I should fight to get mountainkind.com back)
 - establish a Wordpress publication - something that looks more editorial/newsletter
 - hire someone to help build the field guide component (I think I can start on my own)
 - establish my social media platforms and skip the forum idea. Perhaps create a FB group. Create a hashtag such as #askmountainkind
 - start a newsletter - can compile social stuff into a summary, use new content, etc. create a subscription feed for people.
 - create a subdomain with Shopify for a "store" for my photography.

Appendix B

Below is the article I submitted to the Methow Valley News as the first installment in a possible monthly or quarterly natural history column.

Winter is For the Birds

by Mary Kiesau, Methow Conservancy Education Director

The Methow Valley has experienced bone-chilling single digit temperatures, icy conditions and several big dumps of snow this winter. You have to enjoy or at least know how to survive cold temps and deep snow if you want to live in the Methow in the winter - and the same is true in the animal world.

In my opinion, our winter birds get the “hardest survivor” award. Some of our most common winter birds - chickadees, nuthatches, goldfinches, sparrows, golden-crowned kinglet, juncos - are so small it’s amazing that they don’t turn into bird-sicles. How do these tiny birds survive harsh winters?

One answer is insulation. A chickadee can have a 1/2 inch coat of feathers in the winter. Chickadees and many birds increase their feathers from about 1000 in the summer to about 2000 in the winter. When it’s really cold or windy, birds fluff up their down jackets, creating air space between feathers as well as between feathers and skin, reducing the amount of heat lost by up to 30%. Yet, as we know with our own jackets, down only works if it stays dry, so how do birds keep dry in snow and 34° rain? The answer is preening. All that preening the birds do is as much about keeping the feathers in good shape as it is about spreading a self-produced oil around. Birds use their beaks to squeeze oil from the preen gland, which is on their back near their tail, and apply it to their feathers. The oil helps keep the feathers flexible and waterproof.

Another key to staying alive is obviously eating, and these little birds must do that continuously during daylight hours in order to make it through the night. Nearly all the “passerine” birds (perching birds vs ducks or raptors) that stay here during the winter rely on nuts and seeds, partly because insects and fruit are virtually nonexistent but also because seeds are high in fat. Most birds can’t possibly locate enough food everyday all winter long, so many have learned to cache nuts and seeds in the fall and on easy winter days. Watch a nuthatch for a while and you’ll probably see it stick seeds in the bark grooves of a conifer tree. The surprising aspect of all this is the bird’s ability to remember where it cached everything, sometimes months prior. It’s been proven that chickadees’ brains expand up to 30% in the fall to help them remember where they stored food!

A third critical factor to surviving winter is generating heat and conserving energy when the time comes. Birds, like humans and other mammals, are warm-blooded, meaning they must maintain a relatively high body temperature (109° and higher). To create heat, birds move constantly, especially the really little birds, and they shiver. Yes, shiver. They have a different kind of fat than humans have, and their fat is quick, high-energy fuel used to warm birds by continually shivering. Yet, at night, birds have another amazing ability. They slow their metabolism and lower their body temperature 10-18° in a type of regulated hypothermia and unconsciousness called “torpor.” This allows the bird to conserve almost 25% of its hourly metabolic expenditure. Many birds will also spend their nights in communal roosts (often in logs, nest boxes and tree cavities) where the sheer volume of body heat warms a pile of birds. Lastly, birds have a unique circulatory system in their legs whereby the warm blood coming from the heart exchanges its heat to the cold blood coming from the feet that will continue up to the

bird's interior and be re-warmed. This system insures that no heat is lost and the bird's feet constantly receive warm blood, like they are wrapped in a heating pad. This is also why ducks can swim in our Methow rivers all winter and not get cold.

Our bird friends aren't just phenomenal little creatures to admire; we can use their three basic principles too! Put on an extra thick down jacket and stay dry; eat nuts and seeds frequently for high-energy fuel; and keep your body moving this winter!

Appendix C

Below are all the qualitative feedback comments I have received to date on the Mountain Kind Naturalist website.

Laurelle Walsh

Wow. You have put tons of time and thought into Mountain Kind Naturalist. I am super impressed. And you have introduced me to some really useful content and links to resources that I can definitely use!

If I think of any related information that might be good for your site, I'll let you know.

I didn't try absolutely every link, but here are a few things I found:

- Amphibians and reptiles list didn't link to the PDF.
- There must be a way to link your events to Google calendar so people can instantly add them to their personal calendars.
- Did you know that your Follow me on Facebook link at Mountain Kind Photography gives a "page not found" message? You might want to send people to your new FB page.
- I didn't know about Larkwire - fun, and thanks!

Good work, Mary. I have nothing critical to say about your site, so maybe I'm not being very helpful. If you are ever debating among two or three choices for how something should look, or whether or not to include something, feel free to run it by me and I'll give you my opinion.

Have you talked with Jason again about this? I can see where he might be a wee bit jealous of how good Mountain Kind Naturalist is....

Keep me in the loop on the progress of this website, and definitely let me know when I can help spread the word!

Missi Smith

I love it! It loads really well, and I like the format. I love the clickable calendar that you can look at by category and then the window of info when you click on a day with event is great. I like how it gives good info, with a link to the other website if necessary, but still keeps visitors on your site. The white text in the main photo slideshow is hard to read on my computer. I love the photo buttons in the collage at the bottom of the home page. That is really cool. It's fun the way they tilt when you hover on them. The links out to the sources on the Resources page are great. At first pass the content all looks great. Professional. Your voice is strong. I would take a look at where you use "we" "us" vs. "I" "me" and make sure there is some kind of parallel nature to that. But the writing is great, engaging, interesting. You've got a ton of variety of sources. I think it is really good and I think it's totally separate from the Conservancy. That seems obvious and seamless to me. The only thing that left me wondering is if you should call your e-news something different since the Conservancy e-news uses that term in it's title? Like can you give yours a title, and then tag it as an email newsletter?

Benj Drummond

Wow! That's really an impressive start. You move quickly!

It looks like WordPress is working well for you. If there are any little issues with the template that bug you, I'm happy to try to hack the code. Removing the extra social buttons on the top, would be nice, for example.

I ran into issues with the Plant FG. They all linked to the photos and not the PDFs (which are a really user-friendly solution for the near term, BTW).

I look forward to seeing this evolve!

Sara Steele

Just wanted to add that I'm super excited by the articles and essays, field guides and resources page. So cool to have all that information in one place.

Jan Sodt

Wow! This is a very inviting site . . . encourages browsing thru your menu.

The keywords box on the right helps me to categorize my interests. As the website grows you'll have to purge some of the old entries that are time sensitive? Anyway, I like how you have subtopics in smaller print under the keywords, so I know where they will lead me.

Your calendar is great . . . I forget to check every organization's events . . . newspaper sometimes doesn't cover them, or I have to look at the ads carefully. Ex: Basecamp's offerings, MC offerings, Fire recovery organization offerings, WSU and County programs, etc.

The About section explains your purpose well. Your personal goals as a naturalist are different than the educational goals of the MC. I think that as the website grows people will see your character, style, observation skills, etc. I don't think those interactions fit with MC's website, nor should they. I guess I just mean that your website will reflect how you see and interact with the Methow, just as Dana's reveals his world viewpoint and how he links world events and human foibles to the Methow.

Very nice collection of articles and essays. These get lost once published. I think there are so many talented naturalists in our valley and being able to publish some short essays quickly via

your website might provide an avenue that otherwise wouldn't exist. For example, maybe an update from Ken B re. the recovery of wildlife on his property. I remember he left many snags standing. I'd like to hear what springtime brings to his backyard. He wouldn't have to write 1000 words . . . maybe just a response or quick followup. Likewise, maybe a quick report from Rob re. seed planting followup from the last 2 falls of planting. It could be that you could interview them and publish their responses if they don't have time or inclination to write.

Now I could spend hours going thru your Resources links. Each class that MC offers generates more resources too, and knowing that they are all listed somewhere makes it easy to refer back without digging thru notes or electronic files. . . a very nice feature. You will have to set up a schedule to check all of your links. As a librarian I was always having to update links on my website . . . an onerous task.

How do you plan to fit in the sightings or observations of others? I see how I could turn in my observation on the Contact tab. Is there a place where various sightings could be grouped by month? That way I could see when the birds move up and down valley, when the bitterroots were spotted on Patterson last year, etc. I use my personal journal that way . . . what was the temp last year, when did we ride Pipestone for the first time last year, etc. This would be kind of an extension of what Dana's sightings pages are on his quarterly journal. If you archived the sightings by month then I could look back at January 2016 next January and see what was going on, how much snowpack, who saw wolf tracks where, etc.

I really like your theme of connecting natural history with community. I think that's one of the big draws of the Methow Valley. My part-time neighbors are envious that I'm here and can go to so many events that they miss because they live on the west side. My new neighbors

are pretty tech-savvy people, and I think they would look to your website from their west side homes to see what's going on even if they couldn't be here.

Your website would be a place to cover some more controversial issues that might not be appropriate for the MC website. Ex: the campaign against mining in the Methow. In reading about the Malheur Refuge occupation, there are so many issues tied up in that controversy. Often we take sides on an issue without seeing all of the pieces. Even if we don't change our minds it's good to consider as many implications to change as possible. Example: grazing permits, Native American history and needs to preserve culture, constitutional issues, water rights, local human history and local culture and economy.

You've made a great framework. Because of the lack of ads and your design, I don't feel overwhelmed by clutter boxes screaming for my attention. Some websites just get overworked in the graphics. I can see that updating the website will take a lot of time. You'll streamline it and decide which areas don't seem to get used, or don't attract feedback. As a librarian I had to set aside a weekend a month just reviewing my website for students/teachers and making changes. And that was 6-15 years ago . . . now the need for constant updating would be heavier.

I can see why J might feel threatened by where you are going with this . . . but there are certain areas of interest that he would not want on the MC website. I think that your website might draw people like my part-time neighbors in to reading about the Methow, and then they could link to the Conservancy website . . . a natural transition. It's easy for part-timers who don't have a lot of land to think that the MC isn't for them, not feeling a sense of community either. Your offerings would make them feel a part of the Valley.

Susan Ballinger

Wow- what a significant work you've under taken, that will have a long lived impact in our region. It was fun to look over what you've already have up and ready to launch. Very cool. I am honored that you'd like to include some of my materials...

David Moskowitz

Cool Mary! Took a quick look but can do a deeper dive when I get a moment (indeed may be March).

Off the cuff, it looks like you are lined up to deliver a lot of great content! I might work on getting your home page a little less text heavy, with a more visual focus on driving folks to the various offerings or showing what your covering....leave the text for people who navigate to it perhaps?

More when I get back!

Jason Paulsen

Thanks for the chance to review your graduate project website, I can't imagine the work that has gone into getting it to this point. It has a really nice look and feel!