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UNDERCURRENTS: THE LIFE CYCLE OF AN OUTDOOR EXPERIENTIAL
LEARNING PROGRAM IN A MAINSTREAM
PUBLIC MIDDLE SCHOOL

by

Eric Jackson Newell

A dissertation submitted in partial fulfillment
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Education

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UTAH STATE UNIVERSITY
Logan, Utah

2018

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ABSTRACT

Undercurrents: The Life Cycle of an Outdoor Experiential Learning
Program in a Mainstream Public Middle School

by

Eric Jackson Newell, Doctor of Philosophy

Utah State University, 2018

Major Professor: James Dorward, Ph.D.
Department: Teacher Education and Leadership

This autoethnographic study details the researcher's experiences as a high school student and as a new teacher—which eventually led to the creation, implementation, and 8-year life cycle of Mount Logan Discovery, a sixth-grade integrated outdoor experiential learning program in a public middle school. Routine field experiences established academic background knowledge, fostered relationships, built confidence, and provided purpose for curriculum standards. Perspectives of parents, students, colleagues, administrators, and donors add detail. This study responds to calls qualitative studies that focus on how outdoor programs are conducted, the descriptions of experiences and perceptions of students and parents, and how participants were changed through outdoor experiential learning programs.

The primary research question was: What are the lived experiences of the researcher as a founder of a public middle school outdoor experiential learning program,

from its inception to its closure?

Though outdoor experiential learning is the main theme, this study is also about teaching reading and writing in authentic contexts, integrated science, and the struggle for constructivist-minded educators to humanize schools within high-stakes testing culture. From a theoretical standpoint, this is a story of constructivism in praxis.

Participants described that outdoor field experiences improved their attitude towards school, their overall confidence, fostered relationships, established a strong classroom community, and boosted their academic performance. Students and parents emphasized the impact integrating literacy with field programs had on their writing and reading skills. Other themes that surfaced include the role of field experiences in building character and allowing students to find joy and happiness in the learning process. Parents and students alike indicated outdoor field experiences had a lasting impact on participants lives.

The analysis also identifies six steps for putting principles of constructivism into practice in schools, recommendations for implementing new programs, and components of effective field programs. The narrative spurs parents, educators, administrators, and lawmakers to reflect on what really matters in schools. Until we change the way schools are evaluated, outdoor experiential learning programs like Mount Logan Discovery, and other attempts to enrich students' educational experiences, will always exist on the fringes and in the shadows of public education, fighting for sustainability.

(290 pages)

PUBLIC ABSTRACT

Undercurrents: The Life Cycle of an Outdoor Experiential Learning Program in a Mainstream Public Middle School

Eric Jackson Newell

This autoethnographic study details the researcher's experiences as a high school student and as a new teacher—which eventually led to the creation, implementation, and 8-year life cycle of Mount Logan Discovery, a sixth-grade integrated outdoor experiential learning program in a public middle school. Routine field experiences established academic background knowledge, fostered relationships, built confidence, and provided purpose for curriculum standards. Perspectives of parents, students, colleagues, administrators, and donors add detail. This study responds to calls qualitative studies that focus on how outdoor programs are conducted, the descriptions of experiences and perceptions of students and parents, and how participants were changed through outdoor experiential learning programs.

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I am indebted to my doctoral committee, each of whom have played a crucial role in this narrative. As an undergraduate student, I noticed—through a propped open door—a photograph of Dr. Jim Dorward climbing the Grand Teton in the winter on his office wall. I wanted to meet him, but we did not connect until much later. As my committee chair, I value his leadership, accessibility, and no-nonsense approach. Dr. Nicole Pyle visited my Discovery classroom and spent a day on the Little Bear River with my students, reading and writing. In the process, she rekindled my desire to pursue a Ph.D. so that I might understand and contribute to the research on outdoor experiential learning. I appreciate her role, her expertise in adolescent literacy, and her belief in me from the start. I enrolled in a course taught by Dr. Suzanne Jones my first semester in the Ph.D. program. When she mentioned that her dissertation looked back on her sixth-grade classroom experiences, I cornered her afterwards to learn more. Psychologist Dr. Renee

Gallier's role as an outside committee member, and as the mother of a Discovery student, provided indispensable insights. My frequent conversations with Dr. Courtney Stewart, my methodology expert, are appreciated tremendously. Without his steady presence and newfound friendship, I may have lost my footing.

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My parents, whose car I described crashing through the fence in Chapter IV,

allowed me free-rein of the Wasatch Mountains growing up and gave me summers on Georgian Bay in Ontario, Canada as a child—where I learned to paddle a canoe and where I learned how to listen and hold still in the silent bays and inlets of Bateau Island. As an undergraduate and as a graduate student, I knew I had to write to a higher standard if my parents would be readers. They have always pushed me to grow as a writer and as a man. Thank you.

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I never lost sight of the fact that the opportunity to be a graduate student and to write this story is an honor and a privilege. Like Ross Taylor’s 1917 photograph of the blind quarter-horse in the underground mine, the support of each of you mentioned here enabled me to “pull it one more mile.”



Eric Jackson Newell

DEDICATION

When cynics despair the world, I am reminded why I became an educator. This story is dedicated to my former students, including my children—Nathan, William, and Sydney—who give me reason to hope that the future is, indeed, bright.

It is also dedicated to the wild rivers, canyon country, and remote summits that inspire and rejuvenate. And to Allie, who knows.

CONTENTS

	Page
ABSTRACT.....	iii
PUBLIC ABSTRACT	v
ACKNOWLEDGMENTS	vii
DEDICATION.....	x
LIST OF PHOTOS	xiv
CHAPTER	
I. INTRODUCTION AND RATIONALE	1
High School.....	1
The Principal’s Office	13
Teaching Philosophy and Learning Theory	19
Clash of Theory and Praxis	25
Coconuts.....	28
The Rest of the Story.....	30
What was Mount Logan Discovery?.....	31
Summary	31
II. REVIEW OF LITERATURE.....	33
Definitions	33
Literature	35
Public Middle School Research	38
Gaps in Middle School Outdoor Experiential Learning Research	39
Summary	40
III. METHODOLOGY	43
Qualitative Research.....	43
Research Question	44
Research Purpose	44
Autoethnography	45
Connections	47
Procedures	48

	Page
Constructivist Learning Theory.....	49
Research Setting.....	53
Field Experiences	53
Sampling.....	54
Interviews	54
Data Analysis	55
Consideration of Ethical Issues	55
Validity, Reliability, and Generalizability	56
Knowledge Contributions.....	57
 IV. THE LIFE AND DEATH OF DISCOVERY.....	 59
Phoenix.....	59
In the Groove.....	74
In the Classroom—Making the Numbers Dance	77
Splitting Wood	86
Whitewater	88
Castles in the Air	107
Practice-Based Evidence	117
Discovery in Praxis	118
Earning Our Wheels	121
Striding Forward.....	124
A Creed.....	127
Bringing Literature to Life	128
Misunderstandings.....	131
Expansion	135
A Bluebird with His Heart Removed	138
Tenacity	144
All Good Things Must End	148
Epilogue.....	158
 V. ANALYSIS	 159
Fleeting Bloom	159
Vulnerability	161
Challenges.....	163
Perspectives of Students, Parents, Teachers, Administrators, and Donors	166
Themes	190
Numbers	191
Consistent Small Group Field Experiences Are Crucial	192
Implications on Enrollment and Funding	195
Constructivism.....	197

	Page
Program Goals and Achievements	201
One Regret and Many Recommendations for Practice	204
Components of Effective Outdoor Field Experiences.....	207
Congruency	208
Recommendations for Future Research	209
Limitations.....	211
Reciprocating with the Earth.....	212
Concluding Thought.....	215
REFERENCES	219
APPENDICES	232
Appendix A: Informed Consent.....	233
Appendix B: USU IRB Approval Letter	237
Appendix C: USU IRB Interview Questions.....	239
Appendix D: Discovery Proposal	244
Appendix E: Sample Field Experience Destinations	262
Appendix F: Book Lists	264
Appendix G: Discovery 2008-2009 Data	266
CURRICULUM VITAE.....	269

LIST OF PHOTOS

Photo	Page
1. Dean stands high above the inversion, with the Wasatch behind.....	2
2. Dean hangs at a belay station high in Little Cottonwood Canyon, on a route known as the S-Direct, while Eric Jones climbs below.....	5
3. A student writes on the banks of the Snake River, with the Grand Teton beyond.....	32
4. Barefoot sixth-grade students rest their feet and write in their journals, overlooking camp at High Creek Lake, after backpacking 5 miles and 4,000 vertical feet.....	42
5. Students reflect in their field journals on the shores of Jackson Lake, after a full day of rafting and hiking during 2-week session of Summer Discovery: River Rats.....	51
6. The author, teaching sixth-grade students an impromptu session about the difference between antlers and horns, on the banks of the Snake River in Grand Teton National Park.....	58
7. Sixth-grade students paddle the “Pentium II” canoes on the Bear River in Cache Valley.....	71
8. Science teacher Bryce Passey (left) doubled as the camp cook and technology teacher, Dave Anderson, (right) on the High Creek trail.....	74
9. A student eats an apple while reading and discussing a chapter of <i>Obsidian</i> on the trail, as part of Bringing Literature to Life summer learning model.....	75
10. The solar calendar we constructed at Mount Logan Middle School.....	80
11. Logan River interpretive trail signs with sixth-grade students’ writing and art.....	82
12. A Summer Discovery student and his father backpack through a high mountain meadow in High Creek Canyon.....	133
13. The ESL Discovery Excursion, the Pentium II canoes, and the white Discovery Suburban.....	137

Photo	Page
14. Summer Discovery students raft on the Snake River	151
15. A student cannot contain her glee while participating in routine service learning at Hardware Ranch.....	156
16. A student writes along the Logan River during a Discovery field experience ..	158
17. Sixth-graders learned they could do hard things on the trail to High Creek Lake	160
18. Students frequently filled page after page in their journals after writing mini-lessons in the field	162
19. Writing was embedded in every Discovery field experience	165
20. Students create word lists next to Maya, the trail dog, on the High Creek trail	167
21. Faith, at the reins at Hardware Ranch Elk Refuge.....	176
22. A student writes ideas in his journal in the infant stages of the Logan River interpretive trail signs project	185
23. Field experiences provide opportunities for students to develop meaningful relationships with peers and teachers	195
24. Students paddle down the Little Bear River and learn to care about the natural world in the process	216
25. Mount Logan Discovery sixth-grade students write in the foothills, overlooking Cache Valley during the height of the arrowleaf balsamroot bloom	217

CHAPTER I

INTRODUCTION AND RATIONALE

High stakes standards movements...want to increase seat time, the consumption of decontextualized facts, and test scores. The effect is to separate students from the community, from their inner selves, and from the real world.

- David Sobel (2013, p. 24)

High School

“You’d better hurry, you’re going to be late for school,” my mother urged, as I walked out the front door on a cold February morning in 1989. The Salt Lake Valley was socked-in with a severe temperature inversion, trapping a thick layer of smog over the city—which the sun had not penetrated for weeks. My sophomore schedule of seven courses per day felt like a meaningless cycle designed more to keep me off the streets than to educate me. I trudged through the snow along 13th East as morning commuters whizzed past, pondering what a teacher had recently recited to my class in jest: “School is the only place, other than prison, where they check seven times a day to make sure you are still here.”

My close friend, Dean, approached me inside the bustling hallways of East High School. “Let’s get out of here, man!” he said, “I can’t take another day of this.” We both knew where we wanted to go. We had read Tom Sawyer and Huckleberry Finn. We did not have the Mississippi River, but by our estimation the Wasatch Mountains were within walking distance. I emptied the books from my backpack into Dean’s red locker and we started walking the frozen sidewalks and city streets to the mountains. Dean had a math

test. I was cold. We did not care; we were headed for the hills.

The two of us took turns kicking steps in hard February snow as we ascended a ridge in the foothills above Pioneer Park. A strange glow illuminated the surrounding smog. The air transformed from gloomy gray to blinding bright sunlight. Suddenly, like Jack, when he climbed his beanstalk, we too found ourselves in a secret world above the clouds. We had climbed above the inversion. The sun beat down on our gloating faces and we continued ascending the ridge. The sights and sounds of the city were hidden by the sea of dirty-white smog. The snow-covered Wasatch peaks stood out sharply against an azure sky. Our joy was genuine. What I did not realize, was that this short little jaunt into the mountains, playing hooky from school, was the beginning of my life-long journey as an educator.



Photo 1. Dean stands high above the inversion, with the Wasatch behind (February 1989).

Over the next couple of years Dean and I, along with other friends, planned numerous covert outings to the mountains, sometimes smuggling our ice axes and boots out of our houses to climb 11,000 foot Wasatch summits. We were careful, choosing days that would not hurt our grades and exercised restraint so there would not be enough absences on our report cards to cause notice. Though unexplainable sunburns noticed at the dinner table the following winter gave our clandestine adventures away, that February day above Pioneer Park was a turning point in my life. It was the day I took control of my education. It was the day I asserted my values and my needs over the Utah State Core Curriculum. Starved for authentic experience, we partook of a side of life that was too real, too stimulating, and too intriguing to ignore.

The north face of Mount Olympus was framed perfectly by the windows of several of my high school classrooms (Mount Olympus is the shadowed peak in the center of Photo 1). During class I would watch afternoon sunlight creep across the mountain, highlighting the various routes I had climbed; the West Ridge, the West Slabs, the standard North Face scrambling route, the Great Chimney, and Camp's Ridge. The mountain's creamy quartzite slabs slant boldly into the sky forming a textbook example of uplift—a concept we read about in my geology class. We looked at an accompanying photograph in our textbooks of the Flatirons—a well-known formation similar to Mount Olympus located in Colorado's Front Range, some five hundred miles away. This was the same textbook that had a two-page spread of the Grand Teton skyline, printed backwards—an atrocity in my eyes (and no, the photograph was not taken from the Idaho side). But more importantly, my teacher never walked us out on the baseball field to point

out the features of Mount Olympus to his students; he never mentioned it in the classroom.

After school and on weekends, Dean and I frequently climbed technical routes with safety ropes on the granite walls of Little Cottonwood Canyon. Darker, intrusive chunks of rock embedded in the smooth cliffs were more resistant to erosion and created welcomed handholds known to climbers as “chickenheads.” Without chickenheads, many Little Cottonwood climbing routes would be several grades more difficult if not impossible to ascend. During a unit on igneous rocks our geology teacher introduced the term “xenolith” to the class and then projected a picture of a xenolith onto the pull-down screen. “A xenolith,” he explained, “is a piece of rock trapped in another type of rock.”

Behind me, Dean leaned forward, “Hey Eric—that’s a chickenhead!” To this day, I remember the vocabulary word xenolith and the definition, because my experiences connected to the concept and provided meaningful application to my life. When I could make associations between the mountains and what I was being taught in classes, the new academic information stuck with me.

The Wasatch Range shaped my education. I started keeping a journal of my excursions in the mountains—describing the trails we hiked, the summits we reached, and the routes we climbed. My desire to write blossomed. I took interest in reading about others’ ramblings in the mountains. For the first time in my life I picked up books I could not put down like John Muir’s *Mountaineering Essays*, Greg Child’s *Thin Air*—the stories of his experiences climbing the highest mountains in the world—and Barry Lopez’s *Crossing Open Ground*. I thought of myself as a reader for the first time. I began

sketching in my journals and including carefully composed photographs. I bought a camera. I dreamed. I felt passion. The mountains fueled my curiosity, drove my interest in learning, and provided relevance for concepts I encountered at school.

Once we had our driver's licenses, our access to the mountains increased. If we were not working, and we could borrow a family car, Dean and I, along with other friends, spent every chance we could in the Wasatch—hiking, backpacking, rock climbing, and backcountry skiing. One of these afternoons, while working through the overhanging second-pitch crux of “Gordon’s Hangover,” a classic Little Cottonwood Canyon climbing route, my sweaty hands began to tremble and suddenly ripped from the deep granite crack they were jammed within. I peeled wildly out from the outcropping,



Photo 2. Dean hangs at a belay station high in Little Cottonwood Canyon, on a route known as the S-Direct, while Eric Jones climbs below. Xenoliths are the dark spots on the molted granite slab.

free falling for a split second before the rope drew tight and I swung safely into the cliff face. The backs of my hands and several of my knuckles were bloody, my forearms were exploding, but Dean's competent belay arrested my fall. I was fine. After a brief rest on the rope I sunk my hands back into the granite crack and yelled, determined, to Dean: "Climbing!" I finished leading the route. Dean followed. These kinds of episodes, though they may sound harrowing to non-climbers, became routine. We were not pushing ourselves hard enough if we did not take falls periodically.

Wanting to understand the limits of our equipment, we gained a keen interest in physics—how many falls a rope can safely sustain before it should be retired, how many kilonewtons (kN) of force a carabineer can withstand, and what factors make the difference between a casual fall and a death fall. We also acquired a degree of grit—of perseverance. The confidence we gained climbing progressively longer and harder routes carried over to other aspects of our lives, including school.

In his book, *The Age of Missing Information* (1992), author Bill McKibben compared two 24-hour days. One of which he spent backpacking, alone, to a lake near his home, where he pitched his tent and then hiked to the top of a small peak. The same day, he recorded (with the help of others) twenty-four hours of programming on every TV station available on his cable network in Fairfax County, Virginia. He watched the footage in the months that followed. In contrasting the information from the two experiences he wrote;

We believe we live in the "age of information," that there has been an information "explosion," an information "revolution." While in a certain narrow sense this is the case, in many important ways just the opposite is true. We also live at a moment of deep ignorance, when vital knowledge that humans have always

possessed about who we are and where we live seems beyond our reach.
(McKibben, 1992, p. 9)

In 1992—before the proliferation of the internet and smart phones—McKibben noted that our obsession with technology and factual information came at the expense of our relationship with the natural world. I viewed my daily seven-period schedule of high school classes as supplanting life experiences.

I can draw nearly every Wasatch Peak, from any angle, from memory. I can describe the type of rock each summit block is composed of and know the elevation where the granite is capped with quartzite and shale. I can create an overhead map of Big and Little Cottonwood Canyons from a blank sheet of paper, label all the major peaks and their height, and mark the name of every side canyon. Connections we make to the natural world and the influence of specific places on people are profound. Examples are easy to find. Imagine John Muir without the Yosemite; Thoreau without Walden Pond; Amelia Earhart without the sky; Jane Goodall without the jungles of Tanzania; or Darwin without Galapagos Island. Landscapes inspire. In *The Geography of Childhood: Why children need wild places*, Gary Nabhan (1994) discusses the vital role of wild country in child development. His high school experiences were similar to my own: “School was synonymous with staying indoors, out of touch with the most elemental aspects of life,” he wrote, “I learned more about the natural world while playing hooky than I ever learned in the classroom” (pp. 38-39).

Reflecting back on my school experiences offers valuable educational insights. My frustrations with high school certainly were not unique. While sifting through numerous reports on high school dropout rates, it becomes apparent that there are a

number of ways to measure the dropout rate and there are even more ways to analyze the data. Though on the decline, the number of students dropping out of high school is staggering. In 2013, the national dropout rate was just under 5%, equating to more than a half of a million students who drifted away from high school without graduating (Stark, & Noel, 2015). While I was in high school, in 1990, the dropout rate was more than 12% of enrolled students (McFarland, Stark, & Cui, 2016). At times, dropout rates have averaged more than 7,000 students per day in the U.S. (Graham & Perin, 2007; Pinkus, 2006). My high school experiences are congruent with research findings that indicate traditional methods of instruction do not work for all students (Curtis, 2002; Graham & Perin, 2007; Kamil et al., 2008; Marzano, 2004).

Academic achievement levels and self-confidence are related (Pintrich & De Groot, 1990) and may help explain the number of students who drop out of school—many of whom become social and economic burdens on society (Christle, Jolivet, & Nelson, 2007; Griffin, 2002; McFarland, Stark, & Chi, 2016). Within the last decade, as many as 70% of U.S. students in Grades 4 to 12 were classified as low-achieving writers, meaning they did not have the basic writing skills necessary to meet typical classroom demands for their grade level (Graham & Perin, 2007). Reading and writing are not only linked, but they are also reliable predictors of academic success in math and science courses (Graham & Perin, 2007; Kamil et al., 2008). Research also points clearly to the importance of meaningful teacher-student relationships and quality peer relationships as major factors in preventing floundering students from leaving high school (Christle et al., 2007). One comprehensive study of 40 high schools found that schools with the lowest

dropout rates created nurturing environments that fostered a sense of belonging through “courses and school-sponsored activities that were geared to the needs and interests of students” (Christle et al., 2007, pp. 333-334).

Research informs us that academic success, relationships, and a nurturing school environment are important factors for students to graduate successfully. Each of these aspects must be of central concern to educators who are committed to making a difference in the lives of students, especially those who are in danger of slipping through the cracks in public schools. Many at-risk students do not receive needed individualized services in middle and upper grades (Ehren, Lenz, & Deshler, 2004). If we are going to make significant gains in reducing the dropout rate, educators must recast their approach to serve struggling populations of students (Christle et al., 2007; O’Connor & Bell, 2004).

Within this context, it is clear that I beat the odds by graduating from high school. I did not fail any courses, but I did struggle academically and my high school was far from a nurturing environment. As part of a graduating class approaching 500 students, some of my teachers did not even know my name. In many ways, I was anonymous. Looking back, only a few courses left a positive mark on my high school experience. A senior-level English class, advanced photography, and particularly Tom Kemp’s Utah ecology and wildlife course stand out. Mr. Kemp was the one educator that I felt cared about my success—as an educator now, I am confident that many other teachers cared as well, but they did not initiate interactions with me that communicated their commitment. The majority of my days consisted of textbook-driven instruction that did not engage my

interests, challenge me to think critically, or engender a sense of belonging to East High School. My junior year, I read the entire 15-volume set of Henry David Thoreau's journals from 1837 to 1861 on my own—and underlined the good parts—but received a C- in Mrs. Warburton's English class, primarily because I hated monotonously diagramming sentences.

Though frustrated with my classes, I continued to read extensively—Mark Twain, Barry Lopez, Terry Tempest Williams, Bill McKibben, and anything about mountaineering or Antarctic exploration. I read all of John Muir's books. Emerson's and Thoreau's transcendentalism ideas spoke to me (USHistory.org, 2018). I was afforded opportunities to enhance my education outside of school. Each summer my family took long road trips, visiting historical and geographical landmarks that provided a first-hand look at our nation's past. My siblings and I learned about Martin Luther King Jr. and the civil rights movement while driving through the south, we relived aspects of the Civil War at Gettysburg, and learned about the executive, judicial, and legislative branches of government on the steps of the Supreme Court in Washington, D.C. Living in an affluent neighborhood, in a stable home, with well-educated parents, provided me with support that many do not have. Looking back, a clear theme emerges—strong personal experiences carried me through high school and beyond, enabling me to find success.

Oddly, my educational outlook was also influenced by America's most remote and selective campus, Deep Springs College, which is located on the high-desert along the California-Nevada border, half-way between Death Valley and Yosemite (Deep Springs College, n.d.). My dad attended the college in the 1950s. The campus resides on the edge

of the Great Basin and is the lone development in a desolate valley filled with sage brush and Joshua trees. To the west, beyond Westgard Pass, the highest peaks of the Sierra Nevada Range form the western skyline. Based on a liberal arts curriculum with a self-sustaining agricultural labor program, it is the only college in America that boasts of more head of cattle than students—total enrollment is 26 undergraduates, each on a full-ride scholarship. Deep Springs is an oasis both in the desert and in higher education. Founder L.L. Nunn worked his way from Ohio to Telluride, Colorado, where he became a hard-rock miner, then mine foreman and founder of the Telluride Bank (also the site of Butch Cassidy and the Sundance Kid's first bank heist).

With the rising costs (and destruction) of supplying power to his mines by cutting timber to fuel steam-engines, Nunn reinvented himself out of desperation, becoming the first to put Nikola Tesla's ideas about alternating current (which allows electricity to be transported long distances over power lines) into large-scale use (Newell, 2015). Nunn formed the Telluride Power company and quickly realized that the money to be made was not in hard-rock gold mining, but in developing hydroelectric power—which he did feverishly, building hydro-electric power plants primarily in the Rocky Mountain west, but also the massive Niagara Falls power plant (Newell, 2015).

Nunn grew frustrated with highly educated engineers who could not hammer a nail into a two-by-four, and, equally, with skilled construction workers who could do anything with their hands but could not read. These disconnects eventually led him to found Deep Springs College on the belief that a real education must include both intellectual development and practical experience (Newell, 2015). In exchange for their

education, students work the ranch as irrigators, dairymen, mechanics, cowboys, butchers, and gardeners. In a 1923 letter to the student body, Nunn wrote:

The desert has a deep personality; it has a voice. Great leaders in all ages have sought the desert and heard its voice. You can hear it if you listen, but you cannot hear it while in the midst of uproar and strife for material things. "Gentlemen, for what came ye into the wilderness?" Not for conventional scholastic training; not for ranch life; not to become proficient in commercial or professional pursuits for personal gain. You came to prepare for a life of service, with the understanding that superior ability and generous purpose would be expected of you. (Newell, 2015, p. 100)

Nunn's philosophy of education became embedded in my own developing outlook and eventual practice.

Despite my disillusionment with many courses, I never seriously considered dropping out of high school. I graduated with the class of 1991. Though Dean lived in the same affluent neighborhood as I did, he had a rougher go. His mother was incapacitated by multiple sclerosis, his dad had a manufacturing job, and they all lived with his grandmother so she could help care for his mother. Dean had fallen seriously behind in his classes and our shenanigans in the mountains likely did not help. He attributes his eventual graduation to a former Boy Scout leader, Mike Tyler, who took him under his wing and encouraged him to take night classes his senior year and into the following summer, to make up the credits he was missing.

The steps Dean and I kicked up that snowy ridge above Pioneer Park shaped life and, ironically, fueled my desire to become an educator. I had never read a single sentence of educational research, but my own educational philosophy was forming. I knew from my own struggles that background knowledge, meaningful opportunities to apply academic concepts, and direct experiences matter when it comes to creating

enduring understanding. I began to believe that I could make a difference in the lives of reluctant students who do not thrive in traditional classrooms. I believed that if given the chance, I could weave more relevance—ideally in the form of outdoor experiential learning—into my teaching. I mused about creating a school environment that allowed students to forge authentic relationships with teachers and peers and that provided purpose and application for curriculum goals through meaningful experiences.

I did not know how difficult it would be.

The Principal's Office

My principal called me into her office after she caught me out on the playground with my entire fifth-grade class during reading hour. The 2002-2003 school year was my fifth year of teaching and it was my turn to work with the lowest readers. Each year that I taught I had been forced to compromise away a little more of what I felt were essential parts of an effective classroom—autonomy to make instructional decisions, an element of joy in the learning process, the ability to pursue authentic project-based and service-learning opportunities, and building a functioning community of caring individuals. My daily schedule was strictly imposed from the district office. School principals were tasked with enforcing the structure, down to the minute. Like all other school districts in the nation, mine was also under pressure to meet requirements of the President George W. Bush's No Child Left Behind (NCLB) legislation (Au, 2011). It did not help that our principal was our third in 5 years to interpret how best to meet the law.

Under NCLB, educators throughout the country were “mandated to use pre-

packaged curricular materials that require no creative input or decision-making on the part of the teachers” (Au, 2011, p. 31-32). Elementary teachers in my district, like elsewhere, were required to teach subjects at specific times without flexibility. If a math lesson was going great and students were learning enthusiastically I was to stop teaching math and start into language arts at 10:08 A.M.—regardless of whether I had finished the math instruction early or if my students needed more time to understand a concept or complete a project. Language arts began at 10:08. Period.

Reading had become the part of the day I dreaded most despite the fact that I am an ardent reader. I was required to use a commercial scripted reading program, or basal, that dictated exactly what I was allowed to say, all in preparation for the state mandated testing (Au, 2011, p. 32). My teacher’s edition was printed with two colors of ink, blue and black. The blue text dictated verbatim what I must say in response to the black text that my students read. One morning, my students and I were working our way through a story about two kids stranded on a tropical island. The two main characters, in a survival situation, were trying to open coconuts for the milk and fruit inside. My eyelids were heavy and I was out of Dr. Pepper—dangerous territory for 11:00 A.M. on a school day.

One student in my little group stopped reading and remarked, “Coconuts have milk? I thought milk came from cows!” The teacher’s edition did not have the answer to the question written in blue text. I glanced at the door to make sure there was not a district or school administrator watching—they would randomly stop in classrooms with a clipboard to make sure we were teaching these programs “with fidelity.” I was overdue for a visit.

I explained what coconut milk is and then asked, “Have any of you ever opened a coconut?” Seven blank stares. I stood up and interrupted the whole class, who were also working through the same story with several aides. I repeated my question. Twenty-nine blank stares. While subtly closing my classroom door, I described the parts of a coconut to the whole class and then drew a diagram on the blackboard before instructing everyone to return to the story. I could not afford to get caught veering from the teacher’s edition instructions. On my way home from school that afternoon I stopped at the grocery store and bought five coconuts. The next day I took a chance. At 10:08 A.M., I told my class, “Before splitting into our reading groups today, I have a challenge for you. We are going outside for the first 10 minutes to see if you can crack open a coconut.”

Each reading group tried a variety of ways to open the coconuts; tapping them against the ponderosa pine tree trunks, throwing them as high as they could in the air on the grass field, jumping on them, banging them together—none of which worked. Students ran to the monkey bars and dropped their coconuts into the wood chips, they smacked them against the playground asphalt, banged them against the wood beams on the play set, and sent them down the slide. A student finally threw a coconut against cement curbing and coconut milk erupted to the sound of cheers.

About that time, my principal walked briskly from the building toward me. I watched her stride across the field. “Eric,” she asked, with both frustration and composure, “What are you doing? It is literacy time right now.”

“We are reading about some kids who are stranded on a tropical island and are trying to open coconuts to survive. Since none of my students have ever opened a

coconut, I thought letting them try would build interest in the story.”

“Well,” the principal responded, “head back to your classroom and read with the time that’s left. Then come see me on your prep time.”

Though I did not know the terminology at the time, I knew and understood the importance of building connections to readings—and believed that doing so would improve interest, comprehension, and fluency. These are not new ideas. In an 1896 address, University of Chicago professor Albion Small said, “Students must be lead to see the whole if they are to make any sense or derive any meaning from [what] these subjects presumably represent” (Kliebard, 2004, p. 53). If I had known what I know now, I would have cited Robert Marzano (2004), and explained that I was building background knowledge, or I would have explained educational pioneer John Dewey’s perspective, that teaching is most effective when placed in the “context of use” (Kliebard, 2004, p. 66). But at the time I was working chiefly from my own philosophy based on my educational experiences and my bachelor’s degree coursework.

My school district, like many others across the nation, was run in a very linear manner, what Donna Miller (2011) describes as favoring “structure, order, and to maximize control over an environment,” where procedure and routine are valued (p. 34). Michael Apple (2004), in *Ideology and Curriculum* refers to this as “Systems Management,” which boils down to manipulating students to conform in order to maintain “control and certainty” (pp. 102-103) in classrooms. Not to say that elements of these ideas are not important in schools, but overly contrived classroom communities alienate many students. My high school experience is a case in point. And now I was

observing the same effect in my own classroom, despite my best efforts to the contrary.

The same is true when districts and school administrators micro-manage teachers. In reference to Frederick Taylor's scientific management of factory assembly lines in the early 1900s, researcher Wayne Au (2011), called this approach "New Taylorism" (p. 25), "a process perhaps best epitomized by pre-packaged, scripted curricula aimed specifically at increasing the test scores of pupils" (p. 26). The belief was that if regimented efficiency increased productivity in factories then the same would also be effective in schools (Au, 2011). More than 100 years later, this idea persists. The fallacy is that "standardization, in order to maintain a claim to objectivity, has to assume that local, individual conditions and local, individual factors make no difference in either student performance or test-based measurement" (Au, 2011, p. 37).

Standardization is the opposite of individualization. My district administration believed that their controlling practices would provide students with a high-quality education—and in some cases, they did. What they failed to realize is that this management approach felt punitive, manipulative, and controlling to many teachers and students. Au concurs, "When we look at the research on how high-stakes testing is affecting US classroom practices, it becomes quite clear that such testing is promoting the standardization of teaching that both disempowers and deskills teachers" (Au, 2011, p. 30). When teachers are directed what to teach, how to teach, when to teach, and what they can and can't hang on their classroom walls, they become "alienated executors of someone else's plans" (Apple, 2000, 118).

Stephen Covey (1989), author of *The Seven Habits of Highly Effective People*,

described the premier form of leadership as stewardship delegation, which is focused “on *what*, not *how*; results, not methods” (p. 174). Like many school districts across the country, my district was violating this principle by both dictating methods and holding teachers accountable for the results (Au, 2011). In other words, if the district mandates what, when, and how teachers deliver instruction, then they can’t hold teachers accountable for the results—the administration is accountable. It is akin to an adult, with arms wrapped around a child, holding a bat together, and then swinging at a baseball and missing—and then adult blaming the child for not hitting the ball. The child, whose arms are no match for the strength of the adult, has little control of the bat. Many teachers I worked with felt the same—overpowered by the strong arms of the district. These mandates were often imposed with unhealthy levels of pressure and in some cases, threats.

Richard DuFour became a well-known advocate for collaborative Professional Learning Communities (PLC) with the publication of his book *Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement* (DuFour & Eaker, 2009). DuFour believed effective administrators must have what he described as a loose-tight relationship with educators—where they are tight on the end results as defined by the mission of the school, but loose on how teachers arrive at end goals. This relationship allows teachers autonomy to make instructional decisions within acceptable boundaries. DuFour understood the damage that testing pressures inflict on teachers:

The push for teacher evaluation based on test scores, on value-added measures, has also been damaging to teachers. This was instituted despite the fact that virtually all the assessment community indicated that that is not a valid way to determine teachers’ effectiveness. So, we saw a very natural instinct of feeling, “I have to

teach to the test and limit doing things that take time and are more in-depth.” I think educators were very much disempowered—and made the villains of what’s wrong with schools. (Theirs, 2016, p. 11)

I felt pressure to chase short-term gains by focusing on practices such as memorization, with the promise of increasing scores on state mandated testing. Yet, I knew they were “contradictory to constructivist, student-centered, best practices” (Au, 2011, p. 31). The end result of using this approach exclusively is that students are “learning knowledge associated with lower level thinking, and they are often learning this knowledge in fragmented chunks within the context of the tests alone” (Au, 2011, p. 31). Schools that approach teaching and learning in this way demonstrate a “lack of any significant amount of thought being given to how human beings do, in fact, operate in real life” (Apple, 2004, p. 104). I could not, in good conscience, submit to this kind of administrative ideology at the expense of my students—but this is what was expected.

Teaching Philosophy and Learning Theory

I had developed a constructivist, holistic approach to teaching, which clashes starkly with linear management. Constructivist theory asserts that we learn by “reorganizing and reconstructing” (Dewey, 2008, p. 40) our experiences to make meaning. Philosopher and one-time school teacher Henry David Thoreau’s 1860 description of why he liked to go out and pick his own huckleberries, provides a metaphor for understanding constructivism.

For going a-berrying implies more things than eating the berries. They at home got only the pudding: I got the forenoon out of doors and the appetite for the pudding. (Thoreau, 1984c, p. 56)

To translate this into constructivist terms, teaching and learning is most beneficial when students are immersed in the process of learning and can place curriculum concepts in the context of their own experiences. When used exclusively, scripted and textbook approaches that spoon-feed answers and facts, shortchange our students by robbing them of the opportunity to think, discover, and process. “For at the same time we exclude mankind from gathering berries in our field,” Thoreau continued, “we exclude them from gathering health and happiness and inspiration and a hundred other far finer and nobler fruits than berries” (Thoreau, 1984c, p. 56). Frustrated with the emphasis schools placed on memorization in the 1850s, Thoreau lamented: “What does education do? It makes a straight-cut ditch of a free, meandering brook” (Thoreau, 1984a, p. 83). Thoreau’s friend and colleague, Ralph Waldo Emerson, shared the same sentiments:

We thwart the natural love of learning by insisting that you shall learn what you have no taste or capacity for.... Young men are tempted to frivolous amusements to rally their jaded spirits.... Scholarship is to be created not by compulsion, but by awakening a pure interest in knowledge. (Cabot, 1887, p. 615)

Thoreau mused, “The most [students] have acquired is a correct pronunciation of English. It is a premature hardening, but hollowing of the shell. They went away squashes and returned gourds” (Thoreau, 1984b, p. 344). I have always imagined the lacking “pulp” Thoreau references is authentic experience, genuine inquiry, and critical thinking skills—the seeds of meaningful education.

John Muir (1988), whose writings influenced the creation of the National Park system, described the mountains as “open books” and “grand geological libraries” (p. 202) from which we can learn. In *Mountaineering Essays* Muir (1989) wrote of the value of experience: “No amount of word-making will ever make a single soul *know* these

mountains.... One day's exposure to the mountains is better than cartloads of books" (p. 103). Muir learned by *doing*. Thoreau's, Emerson's, and Muir's thoughts harmonize with Dewey's constructivist ideas. Together these thinkers influenced and reinforced my beliefs that processes and direct experience matter because they maximize learning by providing meaningful contexts for academic concepts.

John Muir offers the perfect segue from constructivism to a holistic approach. He believed all things are interconnected. In *My First Summer in the Sierra*, Muir (1944) wrote, "When we try to pick anything out by itself, we find it hitched to everything else in the universe" (p.157). Professor Donna Miller provides a clearer description of a holistic philosophy:

As long as an object of study captures students' interest, moving on to another subject makes no sense. Interest drives the learning experience.... [Holistic teachers] devise ways to invite learning, making the experience palatable, meaningful, empowering, and significant The holist pays attention to the aesthetics of learning.... Such a focus assumes that enjoyable and enlightening experiences lead to learning.... They want educational experiences that are expansive and substantive. This...explains their desire to share power; they wish to provide practice in engaging in genuine conversations to negotiate rules, influence policy, and to effect change. (Miller, 2011, p. 34)

Constructivism and holistic approaches are in many ways synonymous. Professor Linda

Darling-Hammond of Stanford University reviewed numerous studies and concluded:

Students who are engaged in collaborative inquiries involving sustained constructive work along with regular formative assessments are more likely to achieve complex and applicable understandings than when they are engaged in tasks and assessments that emphasize memorization of a broad swath of information. (Parker et al., 2011, p. 535)

In *The Struggle for the American Curriculum*, Herbert Kliebard (2004) added that educational reform

hardly stand[s] a chance in terms of widespread success and longevity when, for example, the tests by which students' and, in effect, teachers' and administrators' success are measured are not attuned to the attributes that presumably favor project teaching. (p. 246)

These thoughts resonated with me, both from my perspective as a struggling student and again as a classroom teacher.

Historically—and despite thinkers like Emerson, Thoreau, and Dewey—rote memorization dominated public school instruction, as it still does today. Scripted programs taught in a linear fashion, like the program I had to use that last year I taught fifth-grade, stifle interest in learning because they remove a critical aspect of teaching—the human element (Kliebard, 2004, p. 6). Professor Wayne Au (2011) wrote that scripted and controlled classrooms “dehumanize the relationships of teachers and students...by alienating them from their own creativity and intellectual curiosity” (p. 28). I was not alone in my defiance. The same struggle for autonomy occurred, and continues to occur, in schools in every state. As a trained professional educator with a wealth of life experience, I expected the freedom to make—as DuFour asserted—informed instructional decisions based on what was best for my students and within the context of professional collaboration, working toward common school goals, and utilizing common formative assessments (DuFour & Eaker, 2009).

The roots of scripted programs reach back more than a century when textbook publishers adopted the “mind as a muscle metaphor” (Kliebard, 2004, p. 5), which “provided the backdrop for a regime in school of monotonous drill, harsh discipline, and mindless verbatim recitation” (Kliebard, 2004, p. 5). In the 1890s, Johns Hopkins University professor and educational reformer G. Stanley Hall believed that “schools

thwarted the child's basic need for activity by treating children as passive receptacles and presenting them with a program of study that ran contrary to their natural tendencies and predilections" (Kliebard, 2004, p. 38). In the same decade, advocates of social efficiency believed that by "applying standardized techniques of industry to the business of schooling, waste could be eliminated" (Kliebard, 2004, p. 24). This ideology—New Taylorism (Au, 2011), that I mentioned previously—amounted to what Kliebard brusquely described as a "veritable orgy of efficiency that was to dominate American thinking generally in the decades ahead" (p. 24). A 1913 study conducted by Helen Todd on child factory laborers "attest[s] to the fact that, with few exceptions, schools were joyless and dreary places" (Kliebard, 2004, p. 6). Todd questioned children, asking if their families were well enough off that they did not have to work in the factories would they return to school? Of 500 participants in the study, 412 children responded, "sometimes in graphic terms, that they preferred the often-grueling factory labor to the monotony, humiliation, and even sheer cruelty that they experienced in school" (Kliebard, 2004, p. 6).

John Dewey, who had worked briefly as a graduate student in G. Stanley Hall's psychology lab at Johns Hopkins University in the 1880's, believed that when "reading was...taken out of its natural context...the child would regard reading as merely a task to be accomplished without any sense of what a book was for (Kliebard, 2004, p. 67). This troubled Dewey. He "deplored the fact that a book had become a 'reading lesson,' and reading itself was nothing but uttering sounds and words" (Kliebard, 2004, p. 67). "When the bare process of reading is thus made an end in itself," Dewey wrote, "it is a

psychological impossibility for reading to be other than lifeless” (Dewey, 1898, p. 322).

All classrooms contain students who fall along a wide range of developmental stages, come from tremendously different environmental situations, have varying levels of social skills, vastly different amounts of background knowledge, and diverse interests (Marzano, 2004; Tomlinson & McTighe, 2005). A master educator sees and understands all these variables and uses them to reach and empower individual students (Marzano, 2004; Tomlinson & McTighe, 2005). In his book, *An Ethic of Excellence: Building a Culture of Craftsmanship with Students*, Ron Berger (2003) wrote, “Much of the country seems seduced at the moment with visions of teacher-proof curriculum, where teachers are seen as little more than semi-skilled gas stations attendants delivering curriculum into students’ brains” (p. 11). Dewey (1899) advocated that classrooms should become “a miniature community, an embryonic society” (p. 28), instead of “only a place to learn lessons” (p. 28). If educators do not have the autonomy to individualize instruction for their students, Dewey (1901) implied, then learning would “remain an external thing to be externally applied to the child” (p. 341).

Contemporary experts and advocates for educational transformation agree. Sir Ken Robinson (2009) believes that testing pressure in our schools promotes uniformity and conformity at the expense of creativity, collaboration, and critical thinking. He claims, “Some of the most brilliant, creative people I know did not do well in school.... The current systems in place put severe limits on how teachers teach and students learn” (Robinson, 2009, pp. 9, 15-16). He advocates that “learning has to mean something for young people” and that “experiential” and “contextual” are key words for instructional

planning (Robinson, 2009, p. 244). He wrote:

The key to transformation is not to standardize education but to personalize it, to build achievement on discovering the individual talents of each child, to put students in an environment where they want to learn and where they can naturally discover their true passions. (p. 240)

Robinson's ideas align with author Thomas Friedman's equation that $CQ + PQ > IQ$; Curiosity Quotient plus Passion Quotient is greater than Intelligence Quotient (Friedman, 2005, pp. 303-305). In other words, if we can cultivate children with curiosity about the world and passion to learn, they will be happier and will better serve humanity than if we stuff them full of factual knowledge with no sense of application or purpose. Motivational speaker and iSchool Initiative founder and president, Travis Allen, believes that with the availability of search engines such as Google, schools should not waste time teaching students' factual information (Allen, 2018). Instead, educators must teach students how to find, filter, and apply concepts related to curriculum standards (Allen, 2018).

Clash of Theory and Praxis

My fourth year of teaching I enrolled in a master's program at Utah State University (USU) called the Mentor Apprentice Collaboration (MAC). The idea was to pair an educator who wanted to pursue a master's degree with an outstanding student teaching candidate. The two would team teach, with the classroom teacher mentoring the student teacher in the fall. As the educator, I then turned the classroom over to the student teacher in the spring, allowing me to be a full-time graduate student for a semester. I forfeited a quarter of my salary and the apprentice was paid a third of a teaching salary

for the year. Through this MAC program, I was able to complete half of my master's degree that spring. But more importantly, I had the opportunity to work with Anna Hart.

During the process of selecting my apprentice from a pool of applicants, my principal and I were required to interview three candidates. I had already worked with one applicant who served in my classroom as an elementary practicum student. We worked well together and I was certain I would choose him as my apprentice. I was out of town when it came time to conduct the final interview, so I called in from a pay phone (they had those back then) in a hotel lobby, thinking that this third interview was an annoying hoop to jump, and feeling bad for wasting whoever's time was on the other end of the line. To my surprise, Anna, who I had never met, interviewed strongly on the phone. After the conference call was over, my principal and I spoke privately, still on the hotel lobby phone. She convinced me to go with Anna over the candidate that I already knew and had worked with. I trusted her judgement and hoped for the best.

Anna was an exceptional addition to my classroom that year. With the two of us as a team, it should have just been called the "Collaboration Program," because I never thought of her as an apprentice, I thought of her as a peer. I'm confident that I learned as much from Anna as she learned from me. I had ideas in my head about how to build a community in my classroom. She implemented daily class meetings for the last 15 minutes of the school day. She established clear ground rules, set up a "Community Compliments and Concerns" jar, where students could place hand-written notes about the good things they saw other students doing in the classroom or write concerns they observed. During class meetings, Anna would play the guitar briefly and we'd discuss the

contents of the jar. Students worked together to solve issues that arose—varying from cheating to cutting in the lunch line. All of these elements combined to create a thriving and healthy classroom environment.

I believed in making reading and writing as authentic as possible. Anna made improvements on my writers' workshop approach and then started literacy response journals with students, where they would read each day and then write in a journal about what they were reading. Anna spent hours writing responses, engaging with students in meaningful dialogue about the books they were reading. Both choice and accountability were built into this approach and students flourished. But administration did not see the same value in what we were doing. Class meetings interfered with instructional time. Writers workshop did not use the spelling book (printed in 1958, I might add). Literacy response journals did not use the reading program the district had spent thousands of dollars to purchase. At one point a district official sat down in the room unannounced, scribbled notes on a pad for about 15 minutes, without any context of what had been happening in the classroom previously. Before leaving she told me, "Did you know that 18.5% of your students were off task during reading time?" She did not offer any other feedback. It felt like a deliberate attempt to intimidate and control our classroom. Anna and I held our ground the best we could, but we frequently were forced to make compromises and were pressed to justify our practices to administration.

Meanwhile, my master's courses were like therapy, buoying my confidence. Though there was congruency between what I believed in and what I was learning in my graduate courses, I struggled with the fact that those ideas were at odds with what was

happening in schools. We discussed this topic in one of my university classes, “Talent’s Unlimited,” and another master’s student asked the professor if she believed it was hard for students to go from progressive, engaging classrooms back to regimented traditional classrooms. Dr. Hobbs paused and answered with a question of her own. “If you had a chance to go to Europe for a month, would you turn it down because you could not stay there forever?” As the discussion progressed, I expressed frustrations I was experiencing to Dr. Hobbs, honestly seeking advice on how to proceed. She knew my story well. Her face lit up, her eyes sparkled, and she said, with all her southern charm, “Eric, you just have to do what you know is the right thing for your students and then let the arrows fly!” Then she swooped her pointed hand forward. “You can’t let your critics hold you back.”

Steve Archibald, a former teacher at Edith Bowen Laboratory School on the USU campus, was renowned for his expertise in project-based and place-based learning with his fifth graders in the 1990s. I tried to meet him several times while an undergraduate student, but our schedules never meshed. Later, while he was working at Teton Science School in Kelly, Wyoming, he gave a seminar to graduate students. I happened to be visiting Teton Science School that October evening and, as a master’s student at USU, decided to listen. I only remember one thing he said. “No one is going to hand you your dream job,” he told the small audience seated in the Murie Museum, “You have to write your own ticket to freedom.” That thought persisted in the back of my mind.

Coconuts

Being confronted by my principal over the coconut incident was the proverbial

final straw on the camel's back. I had had enough. I had fought to make learning authentic for 5 years as a young educator. I began to realize that I could not function within the system unless I caved in and followed the scripted approach that I believed was seriously flawed.

While in my principal's office later that day, the conversation roughly followed these lines: "Eric, you have to follow the reading program. You can't do activities like that coconut thing during reading time."

I appreciated that I could have hard conversations such as this with my principal. There was (and still is) much to admire about her—she was earnestly committed to improving the lives of students in our Title I school and she cared deeply about her teachers. She continues to have positive impacts on the school where she is currently a principal. I still consider her a friend. But this was not the first, nor would it be the last, exchange of this kind. Speaking carefully, I responded:

Me: I have no doubt that the reading scores will be higher at the end of the school year using this scripted program, but we are teaching kids to hate reading. They will never pick up a book again.

Principal: But Eric, that is *your* job, to make reading fun.

Me: Every way that I have tried to do that, you've told me I can't.

Our eyes locked during a brief silence, then she spoke again. "You are right." She took a big breath and exhaled slowly, "But you still need to teach this scripted program with fidelity."

I headed back to my classroom and sat down at my desk. I slowly read a quote I had taped next to my computer:

The world stands out on either side, no wider than the heart is wide.
Above the world is stretched the sky, no higher than the soul is high.
The heart can push the sea and land, further away on either hand.
The soul can split the sky in two, and let the face of God shine through.
But east and west will pinch the heart, that cannot keep them pushed apart.

-- Edna St. Vincent Millay, *Renascence and Other Poems*

“They won,” I thought to myself, “They’ve finally pinched my heart.” I pulled up my resume on the computer. It was time to find a new career. I was done teaching, about to become part of the 50% of beginning educators who quit during the first 5 years of employment (Lambert, 2006).

The Rest of the Story

My experiences both as a high school student and as a new teacher are a microcosm of what occurs in classrooms throughout the nation. The rest of this story explores a number of questions. How did I transition from rock bottom and find new energy to teach, eventually starting Mount Logan Discovery—an outdoor, experiential learning program for struggling sixth graders? How does a constructivist-minded teacher eventually gain footing and thrive in a linear system? What pitfalls and hurdles did my colleagues and I encounter during the 8-year life cycle of our program, Mount Logan Discovery? Why was it discontinued? What can other teachers and administrators learn from our experiences? And what is the value and potential of outdoor experiential learning in public schools?

This autoethnographic study takes a retrospective look at my journey as an educator and seeks to answer these and other queries through the following research question: What are the lived experiences of the researcher as a founder of a public middle

school outdoor experiential learning program, from its inception to its closure?

What was Mount Logan Discovery?

Mount Logan Discovery was a sixth-grade middle school program comprising of a morning group and an afternoon group. About 37 students were enrolled in each three-period block, which lasted about two and half hours and combined language arts, social studies, and science (later, math was added to the block). Groups of seven or eight students participated in curriculum-based field experiences during each block with one educator while the remainder of students stayed back in the classroom with a second educator. Students did not normally miss any of their other courses on the days they were in the field. By utilizing small groups, we were able to maximize the quality of instruction while on the road and in the field. Classroom learning and outdoor field experiences were integrated to build academic background knowledge and give purpose to academic content. Each student ventured out on field experiences once per week or about 30 times during the school year.

Summary

In this chapter I have established my background and built a rationale for this study by connecting my experiences as a disillusioned high school student and as a frustrated elementary school teacher to research factors that influence the drop-out rate. I have outlined the importance of making learning authentic, creating caring classroom communities, and humanizing schools. I have discussed my affluent background and

revealed an obvious personal bias towards outdoor experiential learning. I have shown how life experiences shaped my holistic, constructivist, teaching philosophy and how they fit within a historical context of educational thought and practice stretching back over a century. I described my struggle to put theory into practice and foreshadowed the elements of the literature review that follows, on outdoor experiential learning in mainstream public schools.



Photo 3. A student writes on the banks of the Snake River, with the Grand Teton beyond.

CHAPTER II

REVIEW OF LITERATURE

Maybe schools in the united states do not need more iPads and test prep; maybe they just need more wellies.

Florence Williams (2017, p. 235)

Definitions

Place-based learning, outdoor education, environmental education, and experiential learning are all synonymous with teaching and learning that occurs out of doors. Place-based learning is defined as “the process of using local community and environment...to teach concepts...across the curriculum” (Sobel, 2004, p. 6). Outdoor education is “education in, about, and for the outdoors” (Donaldson & Donaldson, 1958, p. 17), experiential education is considered learning by doing (Adkins & Simmons, 2002), and environmental education is creating awareness of environmental issues with the hope of advocacy or personal action (Adkins & Simmons, 2002). Researchers and practitioners have made cases for the use of one term over another. In my view, the term “outdoor experiential learning” best captures and describes the essence of Mount Logan Discovery. I use the term as an umbrella that is inclusive of place-based learning, outdoor education, environmental education, and experiential learning. Outdoor experiential learning is defined as “an interactive process of learning by doing, which takes place outdoors, and is supported by reflection and synthesis” (Adkins, 2002, p. 2; Priest, 1986).

Residential and day camp style outdoor programs are plentiful throughout the country. However, there are just a few public, private, and charter schools with robust

outdoor learning programs. Though others may exist, I am not aware of any schools that integrate academic content and infuse outdoor experiences into daily routines throughout the entire school year. But there are schools of interest. One example is the Integrated Outdoor Program (n.d.) at South Eugene High School, founded in 2005 by Jeff Hess and Peter Hoffmeister, that combines literacy and PE as an elective for juniors and seniors. Students read various outdoor-themed books throughout the semester, such as *A River Runs Through It* (Maclean, 2009), and participate in outdoor activities to make connections to the text. Hoffmeister (2013) describes details of the program in his book, *Let Them Be Eaten by Bears*. Mount Logan Discovery was in operation several years before I learned about the Integrated Outdoor Program. Their similar approach—of teaching literacy through outdoor-based experiences—fascinates. Other schools that embrace outdoor experiential learning include the Denver Green School (n.d.), a K-8 Innovation School in Colorado; The School in the Woods (n.d.), a fourth-grade program in Colorado Springs, Colorado; and the private K-12 Journeys School (n.d.) in Wilson, Wyoming. None of these schools, as far as I am aware, embed outdoor experiential learning into each school day to the extent we did with Mount Logan Discovery.

Several books of note on place-based learning include *Place- and Community-Based Education in Schools* (Smith & Sobel, 2014), *Place-Based Education in the Global Age* (Smith & Gruenewald, 2007), *Place-Based Education: Connecting Classrooms and Communities* (Sobel, 2004), and *Earth in Mind: On Education, Environment, and the Human Prospect* (Orr, 2004). Each of these books individually make a compelling case for the need, the practicality, and the benefits of employing strong place-based learning

opportunities in our schools. I intentionally did not peruse these books until I had completed my initial analysis of the arduous journey described in this text. I will revisit these books in the analysis.

Literature

In the last 12 years, books such as *Last Child in the Woods: Saving our children from nature-deficit disorder* (Louv, 2005), *The Nature Principle: Reconnecting with life in a virtual age* (Louv, 2012), *Your Brain on Nature: The science of nature's influence on your health, happiness, and vitality* (Selhub & Logan, 2012), *The Great Outdoors: Advocating for natural spaces for young children* (Rivkin & Schein, 2014), and *The Nature Fix: Why nature makes us happier, healthier, and more creative* (Williams, 2017), clearly outline research-based cases for the benefits of interacting with the natural world. These books establish a foundation of the physical (Bell, Wilson, & Lui, 2008; Lee et al., 2011; Li, 2010; B. Park, Tsunetsugu, Kasetani, Kagawa, & Miyazaki, 2010), emotional (Frumkin, 2001; Orians & Heerwagen, 1992; Pea et al., 2012), and psychological (Haluza, Schönbauer, & Cervinka, 2014) benefits of spending time outside. They also detail research that confirms outdoor activities have positive effects on maintaining focus and reducing the symptoms of attention deficit disorder (Berman, Jonides, & Kaplan, 2008; Kaplan, 1995; Taylor, Kuo, & Sullivan, 2002), creativity (Atchley, Strayer, & Atchley, 2012), self-esteem (Hattie, Marsh, Neill, & Richards, 1997), reducing stress (Kaplan, 1995; Ulrich, 1979, 1993; Ulrich, et al., 1991; Ulrich, Zimring, Quan, & Joseph, 2006), and increasing happiness (MacKerron & Mourato,

2013; Nisbet, Zelenski, & Murphy, 2011).

The books listed above also discuss research that ties improved academic performance with more time spent in nature through outdoor education programs (Glenn, 2000; Lieberman & Hoody, 1998; Parrish et al., 2005). Other studies substantiate the calming, restorative effect the natural world can have on students (Hartig, Mang, & Evans, 1991). A 1998 meta-analysis of outdoor education that included more than 12,000 participants indicated measureable short and long term gains in perceptions of confidence, self-concept, and locus of control (Neill & Richards, 1998). The growing bulk of research of outdoor experiential learning, unfortunately, has not interested school and district administrators due to standardized testing pressures. During the No Child Left Behind (NCLB) era, between 2001 and 2015, many administrators sought research that informed training and programs that would directly boost scores in the short term to meet Adequate Yearly Progress (AYP) goals (Grissmer, Ober, & Beekman, 2014). Additionally, standardized testing pressure has prompted many schools to reduce recess time and to offer less field trip opportunities for students (Ramstetter, Murray, & Garner, 2010).

Richard Kraft and James Kielsmeier's book, *Experiential Learning in Schools and Higher Education* (1995), summarizes nearly 60 presentations for the Association of Experiential Education and articles published in the *Journal of Experiential Education* with the specific intent to "inform educators, administrators, and researchers in schools and institutions of Higher Education as they seek to put experiential education into practice" (pp. ix-x). The content however is noticeably razor-thin when it comes to

informing practice in public schools. Kraft and Kielsmeier suggest that more research be conducted with experiential learning “in other areas such as...traditional education” (p. 380). They conclude that, “in sum, when compared to the more established disciplines of education or psychology, research in experiential education is still in an early stage of development” (Kraft & Kielsmeier, 1995, p. 380).

A search of the outdoor experiential learning research database on www.childrenandnature.org for “academic” turned up 52 articles. To back up Kraft and Kielsmeier’s conclusion, of those 52 articles, only 11 have what would classify as a strong focus on public schools and only three of those articles focus on middle school settings. Other online research databases, such as eric.ed.gov, have similar results.

Deane and Harre (2013) conducted a synthesis of nearly 40 years of research on adventure, wilderness, and outdoor educational research between 1976 and 2013, and found support that outdoor experiences increase capacity to build relationships, strengthen self-concept, and confidence. Gill published a literature review focused on research articles published between 1990 and 2011 that had strong methodology and focused on the benefits of spending time outdoors for children 12 and under (2014). This review, which included 61 articles, concludes that time spent outdoors had a positive impact on children’s physical and emotional health, their overall well-being, cognitive processes, and social skills (Gill, 2014). In *Wild Country Hall: An ethnography of outdoor education*, Tony Rea (2012) concurs with these findings: “Strong evidence of the benefits of outdoor learning exist in literature and these have been summarized in a number of important reviews” (2012, p. 41).

Public Middle School Research

Zeroing in on middle school research and outdoor experiential learning, Hiller and Kitsantas' (2014) article, "The Effect of horseshoe crab citizen science program on middle school student science performance and STEM career motivation," details their quasi-experimental study on eighth graders. They found that the experimental group was positively impacted by outdoor fieldwork in measures of science achievement, self-efficacy, content knowledge, and observation skills. "Students in the citizen science program outperformed students who received classroom-based instruction, significantly increasing academic achievement and self-efficacy for scientific observation and mastery skills" (Hiller & Kitsantas, 2014). In their Malaysian study, "A comparative study of the impacts and students' perceptions of indoor and outdoor learning in the science classroom," Dhanapal and Lim (2013) found "that indoor and outdoor learning complement each other to improve students' academic performance in science" (p. 2).

Fägerstam and Blom's (2013) Swedish study—though it says "high school" in the title—examined the long-term effects of teaching biology outdoors to seventh and eighth grade students. The researchers did not find any significant difference in content knowledge between the indoor and outdoor groups, but the students who received outdoor biology instruction exhibited increased levels of long-term knowledge retention and used higher frequencies of course content-related words to describe course activities and content vividly (Flägerstam & Blom, 2013). Tony Rea notes that Falk and Dierking (1997), Hattie et. al. (1997), Nundy (1999), and Telford (2010) "have also claimed that outdoor learning programmes have a greater and more long-lasting effect than classroom

learning” (Rea, 2012, p. 340). Additionally, students in the outdoor group reported “that they were more focused outside and felt more alert. The reasons were the novel, more interesting environment and the exposure to fresh air” (Flägerstam & Blom, 2013, p. 66). This growing body of research indicates that outdoor experiential learning positively affects not just academic performance, but overall character and development.

Gaps in Middle School Outdoor Experiential Learning Research

The bulk of outdoor experiential learning studies hones in on outdoor programs offered by nature centers, museums, and other organizations such as rehab and therapy programs—but few focus on public education settings, as described in the previous section. Of that small slice, much of the work that has been conducted on middle school settings is from Scandinavia, Malaysia, or the United Kingdom, and if academic subjects are included, the attention is overwhelmingly devoted to science and math and tend to focus on stand-alone activities and programs that involve college, high school, or early childhood students. A void exists in research regarding academic-based outdoor experiential learning field programs in public middle schools (Noel & Colopy, 2006).

A vast body of research exists on adolescent literacy and confirms the benefits of integrating reading and writing instruction (Graham & Herbert, 2010). Examples include casting literacy instruction in meaningful and authentic purpose (Brinton & Fujiki, 2004; Calfee & Wilson, 2004; Ehren et al., 2004), and the importance of motivation on learning (Ehren et al., 2004; Wigfield & Guthrie, 1997). However, research investigating the combination of experiential learning and language arts (writing included) is sparse.

Searches for empirical articles describing studies that look specifically at the impacts of experiential learning on writing with middle school students have turned up empty-handed. Articles that do offer descriptions of experiential writing programs or that recommend experiential teaching strategies focus on higher education or high school students. All studies with loose relations to the topic call for more research to be conducted. In other words, the “gap” in middle school outdoor experiential learning research may better be described as a gaping chasm—a Grand Canyon of sorts.

Summary

There is a paucity of research regarding academic-based outdoor experiential learning programs in public schools (Noel & Colopy, 2006; Thomas, Potter, and Allison, 2009). Within this overarching void, Rickinson et al. (2004) further stated, “the number of studies that address the experience of particular groups (e.g., girls) or students with specific needs is negligible” (p. 6). A likely explanation for these uncharted research territories is that outdoor experiential learning programs—let alone middle school outdoor experiential learning programs—flat-out are not very common in public schools, as I mentioned previously. Tony Rea reiterates the findings of Thomas et al., “there has hitherto been a shortage of research in adventure, experiential and outdoor learning that takes account of, and builds upon, previous research” (Rea, 2012, p. 338). Rea and Rickinson each draw attention to the need for outdoor experiential learning research to be embedded in learning theory. Rea writes, “Little mention of theories of learning appears in literature that focuses on outdoor learning” (Rea, 2012, p. 7). “There are few, if any,

systematic reviews,” he continues, “that consider the claimed benefits of outdoor learning within a broader discussion of what constitutes learning” (p. 13).

There is need for more quantitative research on outdoor experiential learning in public schools, particularly middle schools. But researchers specifically call for more qualitative studies that focus on the experiences and perceptions of students (G. Brown, 2004; Fägerstam, 2012) and how outdoor programs are conducted (Neill & Richards, 1998). Rea (2012) adds that future research should focus *not* on asking what participants learned, but *how* they learned and *how* were they changed through outdoor experiential learning programs. Barrett and Greenaway (1995) claimed there is a “desperate need for new research which focuses on young people themselves. Young people’s accounts of their outdoor adventure experiences and development are almost entirely absent from literature assessed” (p. 54).

Overall, research on outdoor experiential learning is growing, and a substantial body of evidence establishes the psychological, developmental, emotional, and physical health benefits of spending time outside. There is a smaller pool of research focused on short-term outdoor experiential learning that occurs in settings such as nature centers, museums, naturalist programs, and resident outdoor programs. Smaller still is the amount of research that targets outdoor experiential learning in public schools—with the majority of these studies concentrating on pre-school, elementary, or high schools, and a good number of these studies were conducted overseas. In all of this, a miniscule amount of research has been conducted on outdoor experiential learning in middle school settings.

Based on recommendations from current researchers in the field, a specific need

exists for qualitative studies in all aspects of outdoor experiential learning that detail how outdoor programs are conducted and that seek to understand the experiences and perceptions of participants—and which ties the research into learning theories. In essence, for researchers—quantitative or qualitative—who are interested in adding to the understanding of the effects of outdoor experiential learning in public school settings, there is a great deal of uncharted territory out there.



Photo 4. Barefoot sixth-grade students rest their feet and write in their journals, overlooking camp at High Creek Lake, after backpacking 5 miles and 4,000 vertical feet. For many of our students, this is the hardest physical task they had ever completed.

CHAPTER III

METHODOLOGY

Get away from a rigid program; allow things to develop spontaneously; that's the most effective way to teach in nature.

Allen Stokes, Founder, Stokes Nature Center
as cited in Karras (2003)

Qualitative Research

In September 1839 Ralph Waldo Emerson watched the northern lights flash and flicker in the otherwise dark New England night sky. He wrote:

Here came the other night an Aurora so wonderful a curtain of red & blue & silver glory that in any other nation it would have moved the awe and words of men ... with the profoundest sentiments of religion and love, & we all saw it with cold, arithmetical eyes, we knew how many colours shone, how many degrees it extended, how many hours it lasted, and of this heavenly flower we beheld nothing more. (Emerson, 1911, p. 252)

Emerson's message was clear: when we view the world strictly through quantitative eyes we risk missing the beauty and essence of experience.

Scrutinizing the impacts of Mount Logan Discovery (Discovery) from statistical and numerical standpoints would be valuable. Though I have access to some significant data, much of the student data no longer exists or is impossible to obtain. If available, various comparisons of attendance rates, student attitudes towards school, end of level testing data, gains in grade level equivalence in reading ability, writing ability, and graduation rates would serve as indicators of the success of the program. Analyzing the net gains or losses to the school district from a financial standpoint would be an interesting study of its own. When Discovery was discontinued a number of families

pulled their children from the middle school and enrolled them in local charter schools instead. It would be informative to know if this exodus resulted in a net loss of weighted pupil unit funds that exceeded the operating costs of Discovery. These types of quantitative analyses of Mount Logan Discovery would provide strong follow-up research to this initial qualitative study.

As insightful as quantitative analyses might be, they would not capture the qualitative aspects and the overall picture of Mount Logan Discovery this study was designed to identify and describe: How the program took shape? How it functioned? How academics were integrated? Why it was closed down, and what were the experiences and perceptions of participants? As noted in the previous chapter, there is a specific call for qualitative research that describes the experiences of participants in outdoor experiential learning programs.

Research Question

What are the lived experiences of the researcher as a founder of a public middle school outdoor experiential learning program from its inception to its closure? Of particular interest to this study is the role of the outdoor experiential learning component in the overall success of Mount Logan Discovery.

Research Purpose

The purpose of this study was to describe the lived experiences of the researcher that led to the design, creation, and implementation of Mount Logan Discovery—a sixth-

grade integrated outdoor experiential learning program at Mount Logan Middle School that operated from 2008 through 2016. Discovery served approximately 550 students during the 8-year span. Through my experiences and perspectives, and those of students and teachers involved, I attempted to describe and express the philosophy and practices at the heart of Mount Logan Discovery. The ultimate hope of this study was pragmatic (Ellis, Adams, & Bochner, 2011)—that this research will stimulate parents, educators, and administrators to value outdoor experiential learning, humanize schools, and to reconsider their own approaches to serving students in public, private, and charter schools.

Autoethnography

Allison and Pomeroy (2000) challenge traditional approaches to researching experiential learning programs on the grounds that traditional quantitative methods tend to ignore the meaning individuals create from their experiences. Because research outcomes ultimately influence practice, Allison and Pomeroy argue that researchers must utilize methodologies that considers the subjective aspects of experiential learning (2000). They recommend future research must focus on personal accounts of outdoor experiences and their perspectives on what aspects of the experience is most influential on learning.

True to autoethnographic writing traditions, the intent of this study was to write in a reader-friendly narrative format (Behar, 1996; Creswell, 2013; Ellis, 2004; Marx, 2008), with the explicit goal of appealing to practitioners (Ellis et al., 2011). As Behar

stated, “Ethnographies are a strange cross between author-saturated and author-evacuated texts, neither romance nor lab report, but something in between” (p. 6). Autoethnographic research “combines the elements of art and science” (Wolcott, 2005, p. 4; see also Ellis, 2004) and rejects the idea that science and art must be at odds with one another (Ellis et al., 2011).

Three main types of autoethnography surface. True to critical theory, critical autoethnography addresses unfairness and injustices (Madison, 2011). Analytic autoethnography takes an objective and analytical approach in connecting the story to theoretical perspectives (Anderson, 2006). Finally, evocative autoethnography aims to allow readers to make a connection to the researchers’ feelings, motives, and experiences (Ellis, 1997). Although I did not set out to write a specific type of autoethnography, this work entails components of each of the three types mentioned above. From a critical standpoint, I expose the inadequacies and unfairness of the standardized testing culture in public schools and the detrimental consequences these pressures have on struggling students and teacher morale. Ultimately, this narrative is about the quest to humanize public schools in the midst of the controlling, assembly-line environment that exists in many schools today. An analytical thread runs throughout the text, as I relate old and new educational philosophies, constructivism, and experience. The candid details of my struggles and successes, and the accounts of considerable risks I took along the way, are evocative in nature.

Participant observation—where researchers are full participants in the community or culture being examined—is at the core autoethnographic research (Ellis, 2004;

Spradley, 1980). An autoethnographer's overall goal is to achieve understanding and to accept the criticism that researchers "are also participants who also reflect, order, interpret, [and] give meaning to events" (Brown, n.d., p. 1). In his seminal book, *Participant Observation*, Spradley (1980) goes so far as to say, "The highest level of involvement for ethnographers probably comes when they study a situation in which they are already ordinary participants" (p. 61). Such was the case with this study.

Connections

As the co-founder of Discovery and an educator in the program for 6 years from 2008 to 2014, choosing participant observation through an autoethnographic approach was the clear methodological choice (Ellis, 2004; LeCompte & Schensul, 2010). My involvement in Mount Logan Discovery was infused into all aspects of the program and my belief in the power of outdoor experiential learning has an inescapable (Creswell, 2013; Ellis, 2004) and long history that may be viewed as bias.

In addition to the experiences described in Chapter I, after graduating from high school I enrolled in a 31-day self-supporting sea-kayaking course in Prince William Sound, Alaska with the National Outdoor Leadership School (NOLS). During college and beyond, I worked as a river guide on Idaho's Salmon River, a backcountry ski guide, a climbing instructor, and as a leader of numerous groups on backpacking, mountain biking, and hiking excursions. Providing outdoor field experiences for elementary and middle school students is well within my comfort zone and a concept I clearly value.

Procedures

This study relied on dialogic sources (Ellis, 2004) such as my extensive personal journals and emails. Electronic sources also informed the study—teaching videos I created, public social media posts and videos from the Mount Logan Discovery Facebook page (since July 2010), newspaper articles written about Discovery since 2008, thousands of my photographs, hundreds of Facebook comments, and web archives from the Mount Logan Discovery website (www.MountLoganDiscovery.org). Retrospective field notes (Ellis, 2004) and emotional recall—imagining myself back at the scenes I wrote about (Ellis, 2004)—were utilized to bring rich detail to my writing. As I wrote, I often returned to the locations I was writing about. Doing so triggered many thoughts and reminded me of many details I otherwise would have omitted.

The autoethnographic aspect is not about “self-absorption, but interrelationships” that “reach beyond” (Davies, 1999, p. 184) the self. Autoethnographers “retroactively and selectively write about epiphanies” (Ellis et al., 2011, p. 3) from previous experiences, with the benefit of hindsight (Ellis et al., 2011). Personal and interpersonal incidents the researcher experienced were analyzed in the context of research literature to describe meaningful aspects of culture (Ellis et al., 2011).

When the need arose to establish more clarity than what the sources listed above offered, and when conflicting perspectives emerged, I conducted conversational interviews (Ellis, 2004) with past students (now over the age of 18), parents, educators, administrators, and donors to triangulate data (Creswell, 2013). These individuals were selected based on their relevance to the story, using purposeful maximum variation

sampling (Creswell, 2013; Patton, 2005). The goal of this study was to tell the story of Mount Logan Discovery through my eyes, but the perspectives of participants added validity and clarity—because “stories are essential to human understanding” (Ellis, 2004, p. 32). Through these stories, I sought to understand the impact the outdoor experiential learning component of the program had on themes including academics, attitude towards school, confidence, and relationships.

Constructivist Learning Theory

Stanford University’s Albert Bandura proposed social cognitive learning theory in 1986, building upon on the 1941 work of Neal Miller and John Dollard. The premise is that we learn through social interactions and observations. Agency plays a key role—students must choose to engage. Bandura (2001) wrote, “To be an agent is to intentionally make things happen by one’s actions” (p. 2). Outdoor experiences in general lend themselves to agency and they build self-efficacy (Pajares, 2002). When students paddle a canoe, they must figure out how to make the craft go where they want it to go. Typically, that is not an easy task for first-timers. They watch others. They try different methods before finding success. Confidence gained through exercising agency in outdoor settings transfers to academics, as students develop a belief that they can change outcomes with effort, in the same way they can follow a course in the canoe once they learn to master the “J-stroke.”

In Bandura’s (2001) view people are “agents of experience” (p. 4), who “accomplish tasks and goals that give meaning, direction, and satisfaction to their lives”

(p. 4). The social aspects of Mount Logan Discovery appeared to play a significant role in learning. Students interacted with one another in small group settings, often teaching each other—directly or indirectly—how to succeed at various tasks. Every field experience provided students an opportunity to share their own writing from the outing and to listen to other students' writings as well. These cooperative processes built writing skills, relationships, academic understanding, and confidence.

Constructivist theory asserts that we learn by “reorganizing and reconstructing” (Dewey, 2008, p. 40) our experiences to make meaning. Writing likely accelerates and solidifies that process. During field experiences, I was consistently amazed by the variety in my students' journal entries. Students shared an experience, students participated in the same prewriting activity—often utilizing a word list created collectively—yet each students' writing was the unique result of their individual perceptions and how they constructed their own meaning from common experience. Dewey wrote, “the reconstruction of experience may be social as well as personal” (p. 41). From field experiences, common themes seemed to emerge in students' writings each day. Although students were influenced by social factors, ultimately each student created their own meaning when they put pencil to paper.

Social learning theory acknowledges that learning is a cultural or social process and that we learn from those around us as we develop collective understandings. Constructivism claims we learn by constructing meaning from experience. Social constructivism blends the two theories. Through this lens knowledge is created as individuals construct meaning within social or cultural contexts and influences.



Photo 5. Students reflect in their field journals on the shores of Jackson Lake, after a full day of rafting and hiking during 2-week session of Summer Discovery: River Rats.

David Kolb's (1984) experiential learning theory expounds on constructivism. Kolb wrote, "Learning is the process whereby knowledge is created through the transformation of experience" (p. 38). Experiential learning theory is a four-phase cycle that begins with a concrete experience, involves active reflection (what works, what does not work), moves to conceptualization of the experience (compare, connect, modify), and concludes with application and reengagement (Kolb, 1984). Each phase involves private and/or social contexts. When the cycle is echoed, competence and eventually mastery result. Harmonies between experiential learning theory and constructivism abound.

As students encounter new contexts and situations, and as they acquire additional background knowledge, their understanding of concepts is "always under construction"

(Brown, Collins, & Duguid, 1989, p. 33). My own experiences watching students come alive in real-world settings is congruent with the idea that traditional school work is often “inauthentic and thus not fully productive of useful learning” (Brown et al., 1989, p. 34). Brown et al. use the example that students are often capable of passing tests but are still not able “to use a domain’s conceptual tools in authentic practice” (p. 34). I argue that it is likewise true that students who do not pass exams are often capable of applying concepts to authentic situations. These theoretic contexts and ideas gave birth to Mount Logan Discovery, and they support the practices we employed.

In one ethnographic study of how twenty “gifted” students created meaning while participating in a 3-day residential environmental education program in a coastal setting, James and Bixler (2008) found that students were more likely to remember experiences that were sensory-rich and that involved others. Additionally, in their article *How shall we “know?”* Allison and Pomeroy (2000) challenge traditional approaches to researching experiential learning programs on the grounds that traditional methods tend to ignore the meaning individuals create from their experiences. Because research outcomes ultimately influence practice, the authors argue that researchers must utilize methodology that considers the subjective aspects of experiential learning. They recommend future research must focus on students’ accounts of outdoor experiences and their perspectives on what aspects of the experience is most influential on learning. In their study on history field trips, Noel and Colopy (2006) concluded that field experiences are motivating for students and that they assist students in understanding content knowledge. This study builds on these findings and recommendations.

Research Setting

Mount Logan Discovery was created for the explicit purpose of empowering at risk students who are transitioning from fifth grade in elementary school to sixth-grade in middle school. However, we also served a slice of the student population classified as gifted and talented—though the connotations of the term are disconcerting to me. In the school district, a total of seven (six public and one charter) elementary schools feed into one middle school, which is the largest middle school in the state (1,460 students in 2014). The middle school demographics in 2014 consisted of 35% minority students and 44% of the student body qualified for free or reduced lunch. In 2008, 39% of the student body were minorities and 63% qualified for free or reduced lunch. The school district as a whole, and the middle school, have experienced a significant decline in enrollment since 2012.

Field Experiences

Every field experience had a strong writing component. Destinations of mini field experiences included places like the Logan River trail, the Bonneville Shoreline trail, Cutler Marsh, and Green Canyon. During the winter, students assisted Hardware Ranch wildlife biologists with elk-feeding program and testing elk for disease. Students were immersed in the natural world—with each student venturing out about 30 times throughout the school year.

Sampling

Though this study detailed my lived experiences, approximately 550 students participated in Mount Logan Discovery, spanning 8 years. Interviews were conducted to tease out additional information beyond what is available publicly. The variety of people who were interviewed included the following.

- Five educators, other than myself, who were involved directly with the field programs for Mount Logan Discovery and its sister program, ELL Discovery.
- Two local donors who purchased vehicles for the program.
- Three former principals at the middle school.
- Several former students (currently over the age of 18).
- Several parents of former students.

Additionally, hundreds of social media comments from participants and their parents about their experiences and perceptions of Discovery were analyzed, contributing to the depth of the study.

Interviews

Interviews were conducted in a casual conversational manner with open-ended questions (Creswell, 2013; Mishler, 1991; Spradley, 1980) and often occurred in unconventional places. I interviewed Bryce Passey in a canoe on the Bear River one evening (which provided great acoustics for recording) and on a chair lift at Beaver Mountain another day. I visited with parents and teachers in their homes and conducted several interviews via electronic messaging. Two interviews were conducted and recorded via Bluetooth while driving to southern Utah. All interviews were recorded

digitally and transcribed. Participants interviewed were selected to maximize the shared perspectives of this narrative (Creswell, 2013).

Data Analysis

Data was coded and examined for patterns and possible interactions (Creswell, 2013). Initially, I believed categories for coding would include (1) outdoor experiential learning, (2) construction of knowledge, (3) social interaction, (4) academic learning, (5) overall attitudes, and (6) confidence of participants. I quickly realized that all the categories were influenced by outdoor experiential learning and that “long term impacts” appeared in all the *in vivo* codes that emerged from student writings, artifacts, and interviews (Creswell, 2013). Codes fit under three main categories, impacts on academic learning (context and application for writing, reading, science, and math), impacts on relationships (classroom community, local community, friendships, and careers), and impacts on personal attributes (confidence, attitude, character, and joy). I kept an open mind throughout the writing process so I did not distort the descriptions and analyses based on what I hoped or expected to find. Triangulation of sources, careful coding of themes, and current literature all informed analysis (Creswell, 2013; Ellis et al., 2011).

Consideration of Ethical Issues

The school, Mount Logan Middle School, and the program, Mount Logan Discovery are not concealed. The rationale is simple; readers of this research may wish to learn more details about the program online to enhance their own instructional

approaches. To protect participants (if they did not wish to be identified), I maintained confidentiality throughout the study by using pseudonyms or first names only, depending on participant's preferences. I omitted details in several instances that would obviously lead to identification of individuals who wished to not be identified (Creswell, 2013; Spradley, 1980). Nearly all participants specifically requested that their actual names be used. Participants' preferences were honored (Spradley, 1980). All data was stored according to USU IRB protocol.

Prior to participating in interviews, individuals were provided a clear explanation of the purpose of the study (Appendix A), the intended audience of the study, and the opportunity to ask any questions regarding the study (Spradley, 1980). Inclusion in the study was completely voluntary and participants had the option to withdraw at any time, though none did.

Validity, Reliability, and Generalizability

The main perceived threat to validity would be my role as both a founder of Mount Logan Discovery and as an educator in the program who became a researcher. This concern is most likely to surface with individuals who are not familiar with participant observation and autoethnographic research (Ellis, 2004) described in detail previously in this chapter. In autoethnography, validity is the extent to which readers perceive the story to represent truthfulness—that it “seeks verisimilitude” (Ellis et al., 2011, p. 8). Reliability in autoethnography refers to researcher's credibility in the reader's eyes (Ellis et al., 2011). Generalizability it is the degree to which readers make

meaningful connections to the narrative—this “is always being tested by readers as they determine if a story speaks to them about their experience or about the lives of others they know” (Ellis et al., 2011, p. 8).

Student writings, social media posts, newspapers, and archived information on the Mount Logan Discovery web page allowed me to achieve saturation and to triangulate data (Creswell, 2013) with my narrative. The overall goal was to create descriptions that allow readers to reach an understanding (Creswell, 2013; Ellis, 2004) of the overall story and culture of Mount Logan Discovery. As a safeguard to ensure validity, nine educators, administrators, and parents, involved with Discovery, and one non-educator unfamiliar with the story, were asked to conduct member checking by reviewing final drafts and providing written or verbal feedback (Creswell, 2013). Their various roles with Mount Logan Discovery provided multiple perspectives that validate the integrity of the narrative.

There are multiple occasions where conflicts with colleagues, administrators, and even board members are described. I went to great lengths to be fair minded and objective in describing these accounts and harbor no malice towards any of them even though we may have had stark differences in our approaches and perspectives.

Knowledge Contributions

This study seeks to contribute to the body of knowledge that is already present on outdoor experiential learning programs and to challenge the current thinking about how to best serve diverse student needs. By describing and interpreting an outdoor

experiential learning program in a mainstream public school setting, it is my hope that the role of outdoor experiential learning in public, charter, and private schools will gain credibility.

The greatest potential for impact from this study is in praxis (Ellis et al., 2011). When combined with the philosophy of thought and educational research Mount Logan Discovery was built upon, the qualitative aspects of the overall program may form a strong case for other schools—public, charter, or private—to employ aspects of Mount Logan Discovery to better serve their students. This is the hope, and the reason for undertaking this study.



Photo 6. The author, teaching sixth-grade students an impromptu session about the difference between antlers and horns, on the banks of the Snake River in Grand Teton National Park.

CHAPTER IV

THE LIFE AND DEATH OF DISCOVERY

From the standpoint of the child, the great waste in the school comes from his inability to utilize the experience he gets outside the school in any complete and free way within the school itself; while, on the other hand, he is unable to apply in daily life what he is learning at school. That is the isolation of the school—its isolation from life. When the child gets into the schoolroom, he has to put out of his mind a large part of the ideas, interest and activities that predominate in his home and neighborhood. So the school, being unable to utilize this everyday experience, sets painfully to work ... to arouse in the child an interest in social studies.

John Dewey (1899, pp. 85-86)

Phoenix

Following the coconut incident, I explored many new paths. I applied to be the director of a local nature center, I pursued a soft money position that provided training for elementary science teachers across the state, and I researched and considered other options. Should I work as a salesman with a friend at Camp Chef Stoves—a small, but growing Logan-based company? Start a business? Enroll in graduate school? Become a whitewater rafting outfitter? Or go work as a caretaker at one of the private ranches located along the Salmon River in Idaho's River of No Return Wilderness? Thinking about the range of possibilities was exciting, and though each option was appealing for various reasons, none felt right. I knew my path forward would emerge if I continued to search diligently, remained open-minded, and continued to be patient.

During the process of searching, the thought of leaving teaching after just 5 years in the profession left me feeling discontented. I became an educator because I believed I

could make a difference. I believed that my struggles in high school would enable me to reach disillusioned students. Even though layers of administrative and legislative bureaucracy suffocated those intentions, I began to question if I was giving up too easily.

When I first arrived at USU as a freshman in 1994, I enrolled in Environmental Studies in the Quinney College of Natural Resources. The following summer I was a greenhorn boatman, guiding 6-day whitewater trips on Idaho's Salmon River. One of the other guides, Karen Mack, taught second grade with Teach for America in Louisiana. I told her that I was considering switching majors to secondary education but did not know if I wanted to specialize in English, science, social studies, or photography. Two days into the trip, while chatting on the beach above Big Mallard Rapid, Karen made a compelling argument for me to shift my major to elementary education "because you wouldn't be locked into one subject—you can integrate content across all subjects." That thought stayed with me all summer.

When I returned to campus in the fall, I walked into my academic advisor's office and transferred to the Emma Eccles Jones College of Education as an elementary education major. My friends thought I had lost my mind. One even asked if I had hit my head on a Salmon River rock. Despite these doubters, I had defined a vision of what I thought I could do as an educator and I moved forward without hesitancy. One of my frustrations with the College of Natural Resources was that much of my coursework focused on managing and manipulating the land for the highest yield—not an aspect of the mountains that held my interest. Ironically, I quickly learned education is no different—instead of board feet of timber, or heads of cattle, test scores are the product

and the focus is on managing and manipulating children for the highest yield. The end goal is proficiency—statistical achievement benchmarks—rather than nurturing caring, contributing members of communities who are capable of working together to solve problems. The focus on standardization, rather than individualization, remained galling.

One Saturday, toward the end of April, my former next-door neighbor during high school, Larry Chalfaunt visited. I offered to take him canoeing. This is the same friend who beat a hasty retreat home one school night at one o'clock in the morning, leaving me alone, in dire need, after our plan to sneak out of the house for a night-hike ended horribly. We shifted my parents 1983 four-wheel drive Toyota Tercel into neutral, and pushed it silently out of the driveway (so sound of the engine would not wake my parents). We planned to start the motor by compression as we coasted down Harvard Avenue, a fairly steep street. The first time we tried this, we executed the plan to perfection. This time, however, the Tercel had been pulled into the driveway forward, rather than in reverse. We pushed the family car out backwards—that is the part we did not think through very carefully.

As we exited the driveway, we gave the car a final heave up the hill. The vehicle paused briefly before we felt the momentum suddenly shift. We learned a painful physics lesson that night—about gravity, mass, and inertia. The car began to roll down the street—and we were not in it. Harold Bennet parked his brown Jaguar at the bottom of the hill and I was certain my parents' little red Toyota would demolish it and I would spend my sophomore year in juvenile detention.

As the car rolled past me, I reached in the open window, gave the steering wheel a

hard crank, and jumped back to preserve my toes. The tires screeched lightly as the car swung to the right, crashing through the neighbor's aluminum-rod fence—the precise moment that Larry ran home as fast as he could. The Jaguar was spared, but it was quite possibly the loudest sound I have ever heard. The neighbor's fence was a mess. I jumped in the car, started it up, backed it out of the newly formed hole in the fence, drove back into my driveway, and then, with my heart pounding in my chest, bent back all of the aluminum rods—which fortunately remained welded to the fence frame at the top, except for the two or three rods that had broken clean off. The bottom of the fence frame was hidden by thick English ivy ground cover. I looked nervously over my shoulder at my house—all the lights were still out—and then dashed back across the street, climbed up the side of the house (rated, in rock climbing terms, about a 5.7 free solo) and crawled into my second-story bedroom window. My heart pounded as I curled under my covers, fully clothed with my shoes still on, waiting for my dad to burst into the room at any second. But he never did. He slept through all the racket.

The next day at Don Beckstrand Boats, where I worked after school as a lot boy, I asked my boss, Jerry, if he could buff out the scuffs the fence imparted on the bumper. “Sure,” he said, and then added, with a smile, “But only if you’ll tell me the story.” It was a fair deal. And so, with Jerry’s help, my nocturnal shenanigans remained undetected. Two things resulted from the experience: First, we never attempted to sneak out for a night hike again. And secondly, I never forgave Larry for abandoning me.

When Larry arrived at my house to visit, I did not waste any time razzing him about the botched night hike attempt. He sheepishly apologized, again, and we laughed it

off as we drove out to the Little Bear River and Cutler Marsh in Cache Valley, with my canoe on the roof.

“I love it out here,” I bragged as we sped along, “There is never anyone on the marsh. I always have it to myself—except for the birds. In the spring the place comes to life, with nesting and migrating birds.” But when we pulled into the parking area, it was my turn to be razzed.

“There’s *never* anyone here, eh?” Larry said pointedly. The parking area was full of cars. At least a dozen canoes floated in the water and kids and adults bustled everywhere. A large paper sign, clearly written by students, hung from the pavilion roof: “Mount Logan Middle School Sandhill Crane Festival.”

I looked around for the person in charge and made eye contact with a gray-haired man with brown eyes and skin that seemed too tan for a school teacher. He flashed a proud grin. I reached out and shook his hand.

“Bryce Passey,” he said.

“I’m Eric Newell. I teach fifth-grade in the district—or *taught* fifth-grade. I’m looking for a new career right now. But what are you doing? What is this?” I gestured with my head, at the kids in canoes and the displays of student work under the pavilion. A lengthy conversation followed.

The two of us struck up an instant friendship. I had heard about Bryce Passey. My principal had suggested several times that I should meet him and that she thought the two of us would be great teaching partners. He taught sixth-grade science at the middle school, and this was one of many outdoor projects he involved his students in throughout

the year. I was intrigued. Before I set my canoe in the water, Bryce reached out to shake my hand and wish me well. Then he paused, and added, “You know, before you quit teaching, you ought to give the middle school a try for a year. I think we will have a sixth-grade science opening next year. Think about it. You might like it.” At that moment, I connected another significant dot.

A week or two prior, after teaching fifth grade, my neighbor Isaac (a senior in high school), and I threw a baseball in my yard. While the ball snapped back and forth in our mitts, I unloaded my thoughts about teaching and how I felt the focus on numbers, and the push to use scripted programs, was at the expense of the human element in schools. Isaac told me about his friend’s dad, Dan Johnson, who was the principal at the middle school where Bryce taught. Dan was equally frustrated with controlling practices in the district (D. Johnson, interview, October 31, 2017). I had to meet this man.

The following Monday I called the middle school and spoke with Dan on the phone. I expressed that I may be interested in giving the middle school a try if the opportunity arose. “But first, I’d like to talk candidly with you to find out if I’d be a good fit.” When I arrived at the appointment several days later, the secretary led me back to the principal’s office. Dan was dressed in a perfectly tailored suit, a pressed and starched salmon-colored shirt, and his thick silver hair was flawlessly parted. I thought I was in the wrong place. I had pictured Dan quite differently. After shaking hands, I sat down and explained my situation. I asked about autonomy in the classroom, field experience policies, and what his expectations were for his teachers. He listened carefully to my questions and answered each one honestly. “With this No Child Left Behind legislation,

states are putting pressure on districts, districts putting pressure on principals, principals are putting pressure on teachers, and teachers are putting pressure on students,” Dan said, “We do not do that here. If we do the right thing—if we do what is best for our students—everything else, all these regulations, all the testing, will fall into place.”

What I did not know when I met with Dan that day is that he was in the midst of putting pieces in place to transform the middle school (D. Johnson, interview, October 31, 2017). Teachers were receiving training on backward design (Wiggins & McTighe, 2005). Dan had already received the first chunk of what would be millions of dollars in grant money to create programs that impacted students positively. “Summer school was remedial before I arrived,” Dan said to me later, “They were taking kids who failed subjects during the school year and making them come back in the summer and retake the courses again—but it was asinine—they were teaching the same stuff in the same way that the kids did not understand the first time” (D. Johnson, interview, October 31, 2017).

New summer school and after school programs were developing. Under Dan’s direction, a school counselor had just initiated an afterschool horsemanship program. “Kids could find a friend in an animal and care for it,” Dan later reflected, “And they loved it. It changed them” (D. Johnson, interview, October 31, 2017). Another teacher offered a Utah Off Highway Vehicle (OHV) safety certification after school, and the new literacy-based summer school programs masterminded by Bryce Passey and his colleague, Dave Anderson, were already underway. Teachers developed each of these programs out of their passions and they were able to reach many students who were slipping through cracks by building relationships with them, and that of course, helped

them with their academics because the students knew the teachers cared about them individually.

Years later Dan said to me, “The district administration was unhappy about these programs. They were making comments and asking questions like, ‘What if a kid gets hurt on one of those horses?’ or ‘What if one of those canoes tips over?’ They never said I could not do these things, but they were dropping hints all over the place” (D. Johnson, interview, October 31, 2017). Unbeknownst to me, Dan had been fighting similar battles with the district that I had been fighting at the elementary school.

As I walked out of Dan’s office, he slapped me on the back and said, “I hope you’ll apply if the position comes open.” I submitted my application and a few weeks later I interviewed at the middle school—wearing my best shirt and tie. After I was hired, I told Dan, “You’re my fourth principal in 6 years.” A huge grin spread across his face and he laughed, “No wonder you’re so screwed up!”

Dan provided rigorous and relevant faculty training and he expected a great deal from us as he implemented backward design, standards-based grading, and differentiated instructional practices (Wiggins & McTighe, 2005; Tomlinson, 2005; Marzano, 2004). Backward design, is what it sounds like, you begin instructional planning by creating assessments—tasks or projects that students complete to demonstrate their understanding of concepts. Then you plan how you will enable students to be successful. Standards-based grading places mastery of concepts over seat time, busy work, and meaningless extra credit assignments—such as cleaning desks or whiteboards for points—that allows students to get enough points to receive an “A” grade. Differentiated Instruction is the

practice of adapting assignments and instruction to meet individual student needs. These were new concepts at the time that most educators had never heard of—concepts schools are implementing more than a decade later as cutting edge practice.

Dan lead with the Richard DuFour “loose-tight” relationship approach (DuFour & Eaker, 2009)—tight on the end results, but loose on the approach. He understood the technical side of being an administrator, the need to reach state and national standards. But he also knew his schools and cared deeply about his staff and students. He understood the human element that is so vital to teaching and learning, and the impact that giving teachers ownership through autonomy has on their motivation and morale. Dan was a true instructional leader. His leadership philosophy—summed up in his own words—is simple, “You hire good people, give them the tools and training they need, and then you get the hell out of their way and let them do their job” (D. Johnson, interview, October 31, 2017).

People respond to trust. It enables them to thrive. Steven Covey (1989) wrote, “Trust is the highest form of motivation. With immature people, you specify fewer desired results and more guidelines. With more mature people,” he continues, “You have more challenging desired results [and] fewer guidelines” (p. 179). I felt far more motivation to teach the curriculum effectivity under Dan and his assistant principals than I ever felt in the controlled and manipulated environments in the past. I enjoyed teaching sixth-grade science under Dan’s leadership. Even though I taught in the closest classroom to the office, I never felt the need to shut my door for privacy, like I had done so many times in the elementary school. I felt trusted and I thrived. When I needed a reminder

about something—like taking roll consistently, which I struggled with at first—it was always handled in a way that was motivating rather than demeaning.

Shortly after I was hired to teach at the middle school, I stopped by the office to take care of paperwork. Dave Anderson (who was the CTE teacher for sixth-, seventh-, and eighth-grade students) and Bryce approached me. “Would you like to teach summer school with us this July?” At the time, in the summers, I was still guiding six-day whitewater raft trips down Idaho’s Salmon River. Though I was only working the trips when the outfitter needed an extra guide, I did not think twice before responding, “No thanks. You can’t pay me enough to teach summer school.”

I thought that was the end of the conversation, but Dave and Bryce just grinned and leaned towards me—as if they had expected my response. “No, listen to what we do,” Dave said, “Before we took over the summer learning program, the drop-out rate was 90% and that was just the teachers. Our model, *Bringing Literature to Life*, does not look or smell like school. It can’t or the kids wouldn’t attend—and we would not be there either.”

Bryce continued from there, explaining that each session runs for 2 weeks. The first week involved canoeing and hiking on and along local rivers, wetlands, and trails and culminated with a ten mile, 4,000 vertical foot backpacking trip to a lake and then to the summit of the tallest peak in the Bear River Range, Naomi Peak (9,984 feet). The second week, they took students to Grand Teton National Park for three days to hike, canoe, read, and write.

They had my attention.

The idea underpinning the Bringing Literature to Life model is to design experiences for students that build background knowledge (Marzano, 2004) for the books they are reading. If, for example, students shoot a bow and arrow while reading *Obsidian*, a story about a disabled Shoshone boy who becomes known as The Arrow Maker, they will have background knowledge and personal experience that enables them to connect to the text in a meaningful way. The instructional pattern of summer school was pretty simple. Walk or paddle until students are tired, then sit down and read a chapter of the book or engage students in mini writing activities until they are fidgety—then start moving again.

Dave and Bryce had each hatched the idea independently of each other the same weekend 2 or 3 years prior (B. Passey, interview, October 23, 2017). Bryce read Gary Paulson’s book *The Haymeadow*, and could not set it down the whole weekend. “Then I started thinking—I loved it because it reminded me of my grandpa. He was a genuine cowboy.” Bryce wanted to read the book with his students, but he realized that they would not understand the book because they did not have any background in ranching (B. Passey, interview, October 23, 2017).

The following Monday Bryce walked into Dave’s classroom and exclaimed, “I’ve got a great idea for summer school.”

Dave interrupted, “I’ve got a great idea for summer school, too!”

Bryce said, “Well, listen to me first!” He described *The Haymeadow* briefly to Dave and explained that the problem is that his students would not connect to the book “because they do not get out and do anything—they play video games. We need to bring

books alive for students so they understand what the stories are about.” Dave laughed and said to Bryce, “Well I started reading the book *White Fang* over the weekend and I realized kids would not understand the book because they do not have any background being outside...” (B. Passey, interview, October 23, 2017). Bringing Literature to Life was born. The two started handpicking stories that they could “live” with students in the summer, many of which were Gary Paulsen books.

By the time I came along, they had a pretty solid system in place. They also knew how to get over, around, or through red tape at the district level. The superintendent had told them they could not take kids to the Tetons anymore for summer school. Undeterred, they wrote a grant which they channeled through the local 4-H club, signed kids up, utilized the school building as any third party can do, had all the kids complete a 4-H project (photography, an art piece, or frequently an essay), and continued offering the program (the district had complete knowledge of this). The canoes they used were purchased through a grant that was budgeted to buy a classroom set of Pentium II computers. Bryce said to Dave, “You know, I was thinking with that money (there was flexibility in this particular grant), we could buy a nice trailer and set of eight canoes.” Nodding his head, Dave said, “I’ll bet they’d last a lot longer than the computers.” The Pentium II’s would have been tossed in the middle school dumpsters within 2 years. The curriculum director at the time was hesitant to sign the purchase order for the canoes.

Bryce had developed a peer-tutoring partnership with a first-grade teacher and trained his sixth graders to teach the younger students science concepts in rotating



Photo 7. Sixth-grade students paddle the “Pentium II” canoes on the Bear River in Cache Valley.

stations at Tony Grove Lake in Logan Canyon. One of the rotations involved the sixth-graders teaching first graders how to canoe—in a carefully supervised and very shallow area, with a parent volunteer sitting on the floor, in the middle, and life jackets on everyone. Bryce rented a set of pretty beat-up aluminum canoes, some of which leaked slightly—not enough to be dangerous, but just enough to get the floor wet. The curriculum director had discouraged the first-grade teacher from using the canoes on the field trip. Bryce reached out to the curriculum director, “The canoes are the crucial piece to this experience for students. It is what they will remember when they are older, and the science concepts they learn will be associated with that memory.” Bryce invited the curriculum director to join them for the field trip to see for himself. “He sat in the leakiest

canoe of the bunch,” Bryce chuckled, “and he left with a wet butt and a smile on his face. The next day he signed the purchase order for the Pentium II canoes” (B. Passey, interview, March 7, 2018).

The summer before I started teaching science at the middle school, I guided one 6-day Salmon River trip and helped Bryce and Dave with two summer school programs. On the first session, during the backpacking trip, my admiration for these two educators grew with each switchback we climbed. They had a strong drive to develop what they called “rich experiences” for students. They knew how to navigate the system. They knew how to make a difference in students’ lives. My mind began to spin with possibilities. I also appreciated the dry sense of humor both Dave and Bryce shared and I decided to join the fray. Dave had been teasing one of the other teachers, Anna, because her pack was so small she could not fit her sleeping bag inside. Dave had offered to carry it for her and reminded her—all in jest—continuously how heavy his pack was because he had not one, but two, sleeping bags in his pack. After listening to him carry on for eight hours on the trail that day—four hours of walking, and four hours of reading and writing and teaching science concepts—it was time to help this woman get some justice.

I explained my plan and Anna and I executed it to perfection the next morning. Bryce had all the students sitting on a log, teaching them about the difference between spruce trees, fir trees, and pine trees. Anna asked Dave if he would help her filter water for her water bottle. While he was occupied with that task, I carefully buried two softball-sized rocks deep into his pack. We hiked out five miles to the trailhead and Dave never figured out why his pack was so heavy.

That night when he dumped the contents of his pack out on his front porch, the two rocks rolled out with deep thuds. Dave dialed Bryce and let him have it. Bryce had no idea what Dave was talking about and finally convinced Dave of his innocence. “It could not have been Eric,” Dave kept saying, “A new guy would not dare do that.” But there were really no other possibilities. The next morning, before summer school started, I walked in the room and came clean when challenged. The three of us had a good laugh over the incident. Our friendship was cemented.

The following week we camped with our students in Gros Ventre Campground in Grand Teton National Park. We hiked into Taggart Lake, canoed on String Lake, and provided evening programs at Blacktail Ponds—where Bryce dressed up and fascinated students with his impersonation of John Muir, father of the National Park system. These were magical days and evenings. Kids went home dirty and a little smelly, but they had created friendships with other students, learned to trust their teachers, and had a variety of rich experiences to boost their confidence and give context for learning. The last evening at the Snake River Overlook, students were journaling about their day in the Tetons after a mini writing lesson. I watched the river flow past and traced its current to the west, toward the Teton summits, before disappearing around a big bend in the twilight.

I edged over to Dave and Bryce and said, “You know, my dream would be to bring my rafts up here next summer, and get these kids on the river.” Nearly any other educator or administrator would have thought I was crazy and dismissed the idea. But Bryce and Dave both flashed big smiles. Dave said, “We know how to make dreams come true.”



Photo 8. Science teacher Bryce Passey (left) doubled as the camp cook and technology teacher, Dave Anderson, (right) on the High Creek trail.

In the Groove

As we planned for the next summer and how to incorporate rafting into the Teton experience, I explained a problem I could not figure out to Dave and Bryce: “I can’t fit all the kids on a raft. Each boat will only hold about six students.” About twenty students typically enrolled in each summer school session. Bryce mentioned that the PE teacher, John Gregory, used to be a guide on the Snake River, and that maybe he could row the other raft. “But,” he said, “I do not think he’s rowed a raft for years.” When the three of us approached John, it did not take any arm twisting to get him to agree to help us out. We had our crew. Together, we ran summer programs for the next 11 summers.

With our literacy focus, we decided to collect fluency data on our students, the first day of the summer school session, and the last day, 2 weeks later. That summer our testing indicated that our students were achieving gains averaging about nine words per minute, with some students making gains as high as 22. We did not really know what that meant in terms of overall context, so we approached our literacy coach. She looked at our



Photo 9. A student eats an apple while reading and discussing a chapter of *Obsidian* on the trail, as part of Bringing Literature to Life summer learning model.

numbers and with a skeptical expression. “Two weeks should not be enough time to see any measurable gains,” she said, and then inquired about our testing procedures. They seemed sound to her but she still did not appear convinced.

“Would you be willing,” we asked, “to test our students next summer? Then there is no possibility of bias.” She agreed. The following summer she tested our students in three summer school sessions, that each lasted 2 weeks. On average, our students increased their reading fluency by an average of eight words per minute, with some students gaining more than 20 words per minute. Though not revolutionary data, it was an indicator to support our personal observations, that our Bringing Literature to Life model was working.

Also noteworthy was the diverse ways other teachers at the middle school offered *Bringing Literature to Life* in the summers. Instructions allowed teachers a high level of autonomy: (1) choose a teaching partner, (2) pick a book, (3) plan experiences that will allow students to connect to the text—bring it to life, and (4) stay within a budget. Amazing partnerships happened. A band teacher and a PE teacher offered a class called *Extreme Sports*, based on Gary Paulsen’s (2008) book *How Angel Peterson Got His Name*. They took students mountain biking, hiking rock climbing, and canoeing while they read the book. An art teacher and a language teacher offered a session called *Mud, Megabytes, and Mayhem*. They read Linda Sue Park’s (2001) book *A Single Shard*. Students spent time spinning pots in the ceramics lab. *Rocket Kids* was offered by a science teacher and a technology teacher. Students read *October Sky* (Hickam, 1998) and designed, built, and launched rockets. In another session, *Say It with Puppets*, students read various books and used the sewing lab to create puppets of book characters. The teachers facilitated student directed puppet shows that reenacted scenes from the books or alternate endings. Each class lasted 2 weeks and fluency gains were consistent regardless of the topic teachers chose

The second summer, Jimmy, a student who had struggled in my science class all year enrolled in our summer program, *River Rats*. He was frequently off task, rarely completed assignments, and other teachers warned us he likely had a severe case of attention deficit disorder (ADD). He was a misfit socially, often involved in disputes with other students. I’m ashamed to say that when I saw his name on the summer school roll I let out a long sigh and thought, “It’s only 2 weeks—I can handle him for that long.”

The first day of summer school we drove high in the mountains to Tony Grove Lake and introduced our students to canoeing. I put a paddle in Jimmy's hand and steadied the canoe while he crept to the bow. Over the next 2 weeks Jimmy transformed to an intent listener who was engaged in conversations and went out of his way to help haul equipment or assist other students. He volunteered to read aloud in front of his peers. He was commonly the first and last student writing in his field journal during writing instruction. Later that session, Jimmy (who was also quite large and uncoordinated) leaned the wrong the way in the canoe on a river bend and became the first and only student to ever dump a boat during one of our school outings. Jimmy made more academic progress in 2 weeks that summer than he had in my science class all school year. A defeated boy flourished. Jimmy proudly sent Dave, Bryce, and me an invitation to his graduation 6 years later.

As we continued to run summer programs year after year, we observed this pattern numerous times—students who were difficult, reluctant learners in our classrooms during the school year, suddenly blossom into interested, motivated readers and writers during the summer. We began to rethink what our classrooms could look like and we frequently talked about what would happen if we could teach these reluctant learners throughout the school year using the same outdoor-based model.

In the Classroom—Making the Numbers Dance

As sixth-grade science teachers, Bryce, Cassie (our other sixth-grade science teacher), and I had an unofficial contest during the school year to see which one of us

could take students out on the school grounds the most frequently for legitimate learning activities. We used an old climbing rope to introduce the concept of waves out on the soccer field, demonstrating wavelength, frequency, and amplitude. Using a propane fire pit, we roasted marshmallows with students to teach them about heat transfer—conduction, convection, and radiation. (We only had a fire marshal stop us once, despite working on an empty patch of pavement in the middle of a spring-green soccer field, with a bucket of water and a fire extinguisher on hand). We created moving models of the solar system—with students running the paths of each planet’s orbit, and created scale models of the solar system in various sizes in the hallways and on the school grounds.

Returning to my classroom during my prep time one afternoon, I saw Bryce out on the sidewalk with his class. His students were hunched over a black and white clip-art images of ants, holding magnifying glasses intently. With the lenses, students were concentrating the sun’s energy into a focal point and burning the images. “What are you doing now?” I asked Bryce with a hint of sarcasm. He looked at me proudly and said, “Burning ants. Kids these days have never burned ants with a magnifying glass. I’m teaching them about focal points.” As I continued walking to the building, grinning at Bryce’s continuous creativity, I heard him ask, “Has anyone noticed that you can’t get the white part of the paper to burn?”

“Yes!” several students replied in unison.

“Why do you think that is the case?” Bryce’s voice faded out as I entered the building. Many teachers grow increasingly disillusioned as they near the end of their careers, but not Bryce. Each year he was a better educator because he continuously

dreamed up new ideas he could not wait to implement.

As educators, Bryce and I had similar backgrounds, shared the same constructivist philosophy, and fed off of one another's ideas, creating a true sense of synergy. During the John Kerry, George W. Bush election I walked into Bryce's room one morning before school to talk. He turned off the morning news on the radio and expressed his fears about what was at stake in this election and how crucial it was that we get it right. I echoed the same sentiments and we both continued to share our concerns until one of us said something that made each of us stop and stare at the other in disbelief. We realized we were pulling for opposite candidates. After a moment of awkward silence, we both broke out laughing at the irony. Because of our deep-rooted respect for one another, differences like this did not faze our working relationship or our friendship. At the core, we shared the same values even if we expressed them differently in the voting booth.

One of my favorite school-yard projects was creating a solar calendar and human sundial on the school grounds with my students—a project that took 5 years to complete. My students did the math in advance to determine how much material we would order and the costs. They did the digging, mixed the cement for the one-meter-tall center pole, shoveled road base in place, and set the paver stones. When we began, we did not know how the shadow patterns from the center pole would appear.

For the next 4 years, we tracked the shadow cast from the tip of the pole and marked the patterns of the shadow with paver stone lines extending out into the grass. Each year we recorded and verified, where the shadow fell at sunrise and sunset on the



Photo 10. The solar calendar we constructed at Mount Logan Middle School. The straight line, in the center is the shadow line on the spring and fall equinox. The curved line to the right is the shadow line on winter solstice. The curved line extending to the left of the photo (and through the center pole) is the shadow line on the summer solstice. Visit www.MountLoganDiscovery.org for more details.

equinoxes and solstices. We had special stones sandblasted to mark these locations. The data we collected was our evidence that the earth's axis is tilted and thus the explanation for why we have seasons. The human sundial—and the movement of the students' shadows throughout the day—was evidence that the earth spins, or rotates, on its' axis.

Our sixth-grade science projects began to extend beyond the school grounds. In partnership with the City of Logan, our students created and installed a mile-long scale model of the solar system called the Planet Walk on a section of the Logan River trail. Students researched information about each planet and in their math class, they calculated

the size of each planet to scale, and the distance it would be from the sun. Students designed the plaques, then measured the distances, dug holes, mixed cement in a wheelbarrow, and placed the planet plaques along the trail. Several years later the city extended the trail and our students researched, proposed, and designed interpretive trail signs that were installed along the walkway. Each sign included examples of student writing about the area, student artwork, and scientific information about birds, fish, animals, and river dynamics. In addition to teaching our science standards, this project provided our students the opportunity to be involved with purposeful writing.

There were other projects. Many involved a service-learning component. We adopted sections of local rivers and collecting water quality samples in partnership with Utah Water Watch. We built wood duck nesting boxes in collaboration with Dave Anderson's CTE class—complete with student writing engraved by the door of each box. With the help of Ducks Unlimited, we took the Pentium II canoes out on the Little Bear and Bear Rivers to install the boxes. All our projects were connected to state curriculum standards, usually across multiple subjects. For every content standard, we had created an accompanying physical experience.

I had tried to do this in the elementary school when I taught fifth-grade and I found some success despite the regimented schedule. I learned to work within the boundaries that I had and slowly expand the possibilities. One example occurred during my second year of teaching when a red-tailed hawk arced its' wings on two power lines, burst into flames, and created a wildfire in the foothills east of town. While walking through the burn area one Sunday afternoon, I immediately saw connections to my curriculum



Photo 11. Logan River interpretive trail signs with sixth-grade students’ writing and art.

standards and reached out to Barbara Middleton, in the College of Natural Resources at USU, who taught an environmental education course. I asked if she would be interested in a partnership where her students would design and deliver instruction for my students, both in the classroom and in the burn area. She agreed to meet and we came up with a plan to visit the site in the fall, winter, and spring with pre, and post, classroom visits connected to each field experience. The Forest Service provided native grass seed and my students, along with Barbara’s university students, re-seeded the area during the winter visit. This was a true symbiotic partnership.

Though I had support from my building administrator, I sensed concern from the

district administration's perceptions about the project. I created a twelve-page document outlining how we were applying the curriculum standards in science, math, and language arts through the foothills fire project. My suspicions were correct. One afternoon a district administrator visited my classroom unannounced and asked, "How do these field trips have anything to do with your curriculum?" I walked over to my filing cabinet, opened the top-drawer, pulled the document I had prepared out of the file folder, and handed it over. "It's all in here," I said, "Let me know if you have any questions."

I was never challenged directly on the project again. Instead of the typical elementary school bulletin boards in the hallway decorated with copycat construction paper artwork, I created a display of my students' data and findings we had collected on regrowth in the burn area. I also displayed student writing samples from their field journals. Fires burned the same area for the next 2 years from the same cause—birds of prey arcing their wings on the power lines, bursting into flames, and spiraling into the dry August grass and brush. We repeated the project each year until Rocky Mountain Power finally sent linemen out to extend the width of the crossbars on the power poles.

One other highlight from my fifth-grade years was "Richard Jones Math." My former boss (when I worked as a river guide for World Wide River Expeditions) and now my father-in-law, sold his rafting company and built a boat in his garage—a high-tech 27-foot-long row boat with sealed compartments for eating, navigating, and sleeping. In 2001, he rowed it—yes, rowed—across the Atlantic Ocean from the Canary Islands off the coast of Africa, to the Bahamas, a four and half month journey. The fifth-grade math curriculum centered around double-digit multiplication, long division, and also involved

calculating mean, median, mode, and range. I created a data sheet that my students completed each day after we received his updated position in an email update.

Each morning for math, students calculated (by hand) his daily distance, his total distance, how far he had remaining, they calculated his mean, median, mode, and range and then they predicted, based on his average distance, what day he would arrive in the Bahamas. We used his journey as a springboard to talk about ancient explorers and their sea voyages, such as the Vikings, Magellan, and Columbus. Longitude and latitude were also part of the social studies curriculum. Each day we plotted Richard's coordinates on a giant Atlantic Ocean chart that hung on the wall. I taught about sea-floor spreading, from our science curriculum, when Richard was rowing above it in the mid-Atlantic.

About a third of the way through his trip, one morning a student asked facetiously, "How many *inches* has he rowed?" I erased the blackboard and set to work to see if I could calculate the answer faster than my students. Richard's total miles, multiplied by 5,280 feet, multiplied by 12 inches came out to somewhere around 58,481,280 inches. I filled most of the blackboard with numbers. Then another student asked, "How many *millimeters* has he rowed?" The metric system was also part of my math curriculum—that I had planned to get to later. Instead of dismissing the student's question I paused, erased the blackboard one more time and converted his miles to kilometers.

"If we had been tracking Richard in kilometers all this time," I said, "the total distance we'd have is 1,479.8 kilometers. To convert this number to millimeters is actually a piece of cake." I moved the decimal six places to the right and said, "There you are. Richard Jones's distance in millimeters: 1,479,800,000." My students were

astounded at the simplicity of the metric system and they voted from that day forward to track Richard's progress using metric units. Two months later, when Richard arrived wearily on Ragged Island in the Bahamas, my students understood long division, double digit multiplication, basic statistics, longitude and latitude, and the metric system better than any other class of students I've ever taught math.

These examples demonstrate how I approached teaching within in the classroom. I constantly sought ways to integrate content and to make learning as engaging and authentic as possible. When I could find a theme, or a project, that gave the real purpose to our learning, the curriculum became a means rather than end, and both my students and I thrived. Though these projects required extra work to plan, they made teaching deeply satisfying because I could see my students' enthusiasm for learning—and we smiled and laughed along the way.

Years later, I was a presenter at what is now known as the PLATEAU Conference, held in Blanding, Utah each winter. During a break, I had a long conversation with Dr. Jim Barta, who is now the Dean of the College Health Science and Human Ecology at Minnesota's Bemidji State University. At the time, he was a math education professor at USU—specializing in mathematics in indigenous cultures, working specifically with the Navajo Nation. He recounted an experience at a Navajo tribal meeting. Dr. Barta had asked one of the Navajo Elders why he thought there was an achievement gap in math testing scores with Navajo children. “The Elder looked at me,” Dr. Barta said soberly, “and he said, ‘Jim, it is because the numbers do not dance.’” Dr. Barta paused, let that sink in, and then said to me, “If I was a math teacher in a classroom, I would not ever

write a number on the board that did not have a story attached to it.” The essence of what I’ve always tried to do in the classroom is just that, to make the numbers dance.

Splitting Wood

Freedom is just another word for nothing left to lose.

- Janis Joplin, *Me and Bobby McGee*

On Friday, December 16, 2005, during my third year at the middle school, Dan called an unexpected faculty meeting after school. Seventy-some faculty members crowded into the front section of the auditorium to hear what Dan had to say. None of us knew what to expect. Dan stood up and explained somberly that he had submitted his resignation to the district “due to an atmosphere of mistrust created by the district office,” citing “a series of events that have built up over time.” Out of professional courtesy, he did not elaborate. All of us were stunned. When he finished, we all stood out of respect and applauded his courage and his leadership. We each feared what the future would bring.

I did not learn, until more than a decade later, the impetus for Dan’s resignation. Dan had been heavily involved in the process of attaining designation (for the middle school) as a School to Watch—a national program that recognizes schools who excel in four aspects, (1) developmental responsiveness, (2) academic excellence, (3) social equity, and (4) organizational structures that support learning needs of students (Kirk, 2010; National Forum, 2018). As part of initiative, Dan and his administrative team were required to visit other schools who had achieved the Schools to Watch status. This

involved several days of travel, mostly to sites along the Wasatch Front, one to two hours distant. The superintendent summoned Dan to his office the morning of December 16th. When Dan sat down, the Superintendent spun slowly around in his high-backed office chair and gazed out the window. With his back turned to Dan he asked, “How are you going to pay *me* back for the days you have been gone?” (D. Johnson, interview, October 31, 2017). This was the final event in a series of many. Hours later, Dan announced his resignation. Incidentally, and as a direct result of Dan’s leadership, the middle school was designated as a School to Watch in 2007, 2010, 2013, and 2016 (National Forum, 2018).

Reflecting back on these events, more than a decade later, I am struck by the audacity—even the absurdity—of what my colleagues and I did next. I’ve never been one who is content sitting behind the scenes and back talking, which erodes the integrity of an organization from the inside. I had always found success solving problems by being direct and honest with bosses and later, principals. Because of this, I did not have any reason to believe things would be any different this time around. At the same time, I certainly was not naïve. I understood the level of risk I was taking by getting involved. But I did not feel there was any other option. Many felt the superintendent, the school board, and the teacher association presidency were too comfortable to hold one another accountable.

One of the benefits of owning a wood-burning stove is it provides ample opportunities to release frustration. I split wood that weekend—a lot of wood. In just 7 years in the classroom, I worked under two superintendents, four principals, and two assistant principals. I had also taught in the district long enough to understand the

underlying issues that caused Dan to resign. Fairly fresh from the elementary schools, I knew what Dan had shielded us from. I knew what teaching would be like without Dan. The superintendent set the tone early in his tenure, in response to concerns over changes in the elementary school boundaries in the district that violated previous agreements, he told a group of parents, “There is a new pharaoh in Egypt” (Ehrlick, 2003).

As my splitting maul flashed in December evening light, I resolved—wrong or right—to start a course of action until I saw someone doing something more effective or until I felt the issues in the district were properly acknowledged and addressed. I was not currently a member of the teacher association, though I had been in the past, and thus had no formal legal protection or counsel. I had absolutely everything to lose, but at the same time, I had nothing to lose. I would not continue teaching if conditions reverted to what I had experienced in the elementary school. My salary was not nearly high enough to worry about financial ruin. I knew that by getting involved I was laying my educational career on the line.

I was willing to gamble.

Whitewater

The following Monday before school, Dave, Bryce, and I all met in the hallway and discussed our options. They had reached the same conclusion I had over the weekend. After school, we talked again and the three of us decided to call a meeting for the following day, Tuesday, December 20th and invited all teachers in the district to attend for the purpose of focusing our time and energy on working together to improve

conditions for teaching and learning in the district. The teacher association had been unable to bring about any change in the past, despite continual pleas from educators. To prevent the district office from feeling threatened, we invited the personnel director to attend. An additional district administrator showed up as well and when challenged about his presence by fellow teachers, Dave responded without hesitation, “We invited him”—even though we had not. We hoped it demonstrated to the district administration that we were interested in solving problems out in the open. The local teacher association leadership asked if they could attend. Neither Bryce nor I were dues-paying members, but we agreed on the condition that they understood it was our meeting, not theirs. We would be allies, but we felt our independent approach was more likely to be effective in changing the district culture. Morale in the district—especially on the elementary school levels was dismal.

Our goal for the meeting was to keep things positive and conduct our business in the open. We had nothing to hide. Our intended outcome was to gather feedback from teachers in the district to craft fair statements that would be presented to the superintendent and the board of education, outlining district wide communication and trust problems—whether real or perceived. We established firm ground rules for the meeting: (1) check your anger at the door, and (2) no personal vendettas or ax grinding.

Ten minutes before the meeting began, Dave, Bryce, and I stood alone in the small auditorium, the Little Theater—each of us sporting neckties. Bryce had taught for roughly 25 years, Dave for 19 years, and I was in my eighth year. We had no idea how many people would arrive or how things would turn out. “This is the same feeling you

have right before you drop into a big rapid on the river,” I said to Dave and Bryce, “You do not know exactly what’s going to happen, but you hope everything goes according to plan.” Soon afterwards, teachers began filing in.

Later we learned an administrator in the district had sent out an email to teachers earlier that day (intentionally excluding Dave, Bryce, and myself from the district announce email list), stating that the meeting was “unauthorized and unprofessional” and “that teachers should not attend.” Nevertheless, well over a third of all teachers in the district showed up. The Little Theater was packed with standing room only. Two newspapers and one TV news station had reporters in attendance—we had no idea who tipped them off. The turnout was a testament to the frustration many—but certainly not all—educators in our district felt. At times, it was challenging to keep comments constructive and maintain a productive discussion, but with three of us conducting we kept the focus on identifying problems and solutions.

During the two-hour meeting, we narrowed the issues to three broad categories common throughout the district, all of which boil down to issues of trust: (1) lack of professional respect, (2) lack of professional autonomy, and (3) an atmosphere of intimidation. There were also positive comments made. We intentionally kept issues general to prevent even the perception that we were going after individual administrators. At the close of the meeting Dave, Bryce, and I agreed to send out the notes from the meeting to everyone in the district to invite more feedback and then formally take the list of concerns to the district and request that they address the issues. Afterwards, we thanked both district administrators for attending and expressed our hope that these issues

would be addressed. We expected the District and the School Board would take our concerns seriously and make every possible attempt to resolve the issues.

The following morning was the last day of school before the winter break. Dave, Bryce, and I received the first of a string of threatening emails from one administrator that included bold type and ended with a stern message in all caps. It said, “WHO ELECTED, APPOINTED, AUTHORIZED, OR ORDAINED YOU TO DO THIS?!!!!!!” But there were also administrators at various levels in the district who understood our concerns. The headline in the local paper, the Herald Journal, read “Teachers air gripes.” Parents had independently organized a rally that day in front of the school to show support for Dan. They handed out stickers for students and teachers to wear with phrases like: “My principal has principles,” “Dan is the man!” or “I support my principal.” The previous day a group of parents had approached Dan and explained they were organizing a student strike from school. Typical of Dan, he talked them out of it. “I’m a farm boy,” he had told them, “You do not strike. When the sun comes up you put on your clothes and go to work.” (D. Johnson, interview, October 31, 2017).

Students were released at 12:25 p.m. that day and just prior to the bell, Dan came on the intercom and announced a brief meeting in the Little Theater for all faculty and staff. He explained that the support shown by teachers, parents, and students was overwhelming. He continued, “I had a school board member in my office in tears today, fearing that all the good programs in the district that have been developed over the years will be jeopardized if I do not come back before this thing spirals out of control.” He then said, motioning with his hands;

I resigned for an issue over here and then all these other issues came forward. I told the board member that I would not consider coming back unless the issues brought forward in the meeting last night are addressed. So—those of you who have brought the trust issues to light must promise me you will continue to pursue resolution. That being said, I have rescinded my resignation.

We gave Dan a second standing ovation.

The timing of winter break allowed everyone to catch their breath and sort out thoughts. Dave, Bryce, and I received numerous emails and calls of support over the break. When Dave called the Superintendent's office to confirm our spot on the agenda for the January board meeting, the secretary's reply was short; "The Superintendent would like to meet with the three of you Tuesday at 3:15 p.m."

Over the break, we learned that at least three of the six elementary principals in the district had confronted teachers and asked them to sign their names to the list of concerns if they agreed with them. "If you do not sign," the teachers were told, "then it must not be a problem." The district was attempting to solve issues of trust and intimidation with intimidation. They clearly were not interested in hearing or addressing teacher concerns, only silencing them. Steven Covey (1989) describes this management practice as borrowing strength from positions of authority.

Borrowing strength builds weakness...in the borrower because it reinforces dependence on external factors to get things done.... It builds weakness in the relationship. Fear replaces cooperation, and both people involved become more arbitrary and defensive. (p. 39).

Tuesday, January 3rd was the first day of school after the break. I dropped my kids off at their elementary school and hustled off to the middle school. On my way, I left a card in one of the curriculum director's boxes at the district office expressing my hope that we would all be able to solve the issues together. During our after-school meeting

with the Superintendent, I noticed beads of sweat on his forehead. Two school board members were in attendance. In nearly 8 years of teaching in our small district, this was the first time I had ever met a school board member and shook their hand. During the meeting, Bryce, Dave, and I repeatedly expressed the need for the district to recognize the issues during the upcoming board meeting. “Teachers need assurance that you are taking these concerns seriously. If you do not,” we said, “the whole thing will blow up again. Teachers are at a boiling point.” We did not say—nor mean—that as a threat, we said it to help them understand the reality of the situation. The superintendent and one of the school board members laughed aloud, confirming our suspicions that they believed with Dan’s return, everything was settled.

Another crucial detail from the meeting was that the superintendent explained that our list of three main concerns were “way too vague,” and that they could not possibly respond unless they had more specific details. He asked for teachers to provide comprehensive descriptions of their concerns, and that they would not acknowledge anything that was anonymous. “So, you want teachers to provide you with specific details?” we asked.

“Yes,” he replied.

The superintendent and board members chided us for not using “proper channels” to air our concerns. We explained, “Clearly those channels have not worked in the past or we would not be in your office right now having this conversation.” We were as civil and respectful as we could be. They acknowledged that there were issues that they needed to look into, but still would not commit to addressing them at the board meeting. We

encouraged the superintendent to send out a district-wide email to communicate progress to teachers. He hesitated, then looked at me, and said, “*You* send it.”

“I think it would be better coming from you,” I said.

He refused again. “*You* go ahead and send it,” he repeated. We briefly recapped our conversation and I outlined on a notepad what I would say to summarize our meeting—including that the district had not agreed to address the issues at the next board meeting. We shook hands before leaving. I walked out of the Superintendent’s office in disbelief that he would not send the email.

Wednesday, January 4th a professionally written survey arrived at the home mailbox of every teacher in the district. It came from the group of parents who had organized the rally in front of the middle school. Now nearly 200 strong, they called themselves Parents for Positive Change. A second survey from the teacher association was handed out to all association members before school. During a break from my class, and as agreed upon with the superintendent in our meeting, I sent the following email out to the entire district:

Dear Fellow Colleagues,

Following our meeting on the 20th of December we agreed that our next course of action would be to present our concerns to the school board and see that they were addressed in the January 10th school board meeting. To dispel rumors, and in the spirit of keeping this process transparent, here is our progress report:

Yesterday, January 3rd, we met with the Superintendent, Board President, and a board member. The meeting was friendly and productive. The superintendent and board expressed their concerns over the issues raised at our meeting and their desire to resolve them: “You have our attention and we are aggressively working to resolve issues and are exploring appropriate forums to address them.”

We were not able to get a commitment that our issues and concerns would be on the January 10th agenda for the School Board meeting. That decision will be made

by the end of the day on Friday, January 6th when the board agenda will be posted on the district web site.

The superintendent and the board expressed that the issues we presented were vague and that more specific details would enable them to resolve the issues in an amicable fashion. In an attempt to get more detailed information, they have asked building administrators to discuss the issues with their respective faculty members. Concern was also expressed that the issues identified on December 20th may not be broad based. We acknowledged that not everyone in the district has experienced part or even all of the issues brought forward.

We expressed that our list of concerns was intentionally generalized to avoid any personal attacks and that many teachers will not speak openly with administrators, citing trust levels and fear of retribution. We encouraged the board to seek other avenues to gather information.

Many people have already stepped forward and expressed to their building administrators which specific issues they experience. Because the district office and the board wish to understand how extensive and far reaching the concerns are, it would be vital for you to express your thoughts directly to them in a way that you feel comfortable. Be constructive, thoughtful, and specific.

The teacher association survey is independent of our efforts, but would be a safe venue in which to write information you would like communicated. Other venues you may consider using include Community Council, your local PTA, or you may continue to send comments directly to us via email.

Our goal is to resolve the issues on the table while preserving everyone's dignity.

Dave, Bryce, and Eric

“We naturally associate democracy, to be sure, with freedom of action”
-John Dewey

My classroom phone rang almost immediately after I sent the email. The superintendent was angry, “Um, Eric, that is not my recollection of the meeting.” I choose to listen instead of argue. Then I asked, “There is nothing in the email that we did not discuss at our meeting—what part are you uncomfortable with?” After a long discussion on the phone, and with the superintendent's permission, once again I sent out a

brief follow-up email to the entire district that said, in short: “I just got a call from the Superintendent and he said a plan of action will be presented at the January 10th board meeting.” After school in the parking lot, a representative from the teacher association told Dave, “You three have accomplished more in the past 2 weeks than the teacher association ever has.” True or not, the association was also playing an important role, as were parents and teachers. We were just a faction of the whole.

That week I spent time visiting several of the angriest administrators in the district, listening to their frustrations and gaining ground in helping them understand our perspective. These visits were crucial to maintaining good relationships with them. In the beginning, I had suspected the elementary principals would side with teachers in this movement. I had good reason to believe many of them were also frustrated with district practices. I was puzzled at their strong pushback. One administrator in particular begged us to stop, telling me that we were doing “so much damage to the district.” I held my ground, “We are not doing the damage,” I said, “that is self-inflicted, in the way district officials chose to respond. All we are asking is that these concerns are addressed.” I continued, “Dave, Bryce, and I are not the source of the problems. How teachers are treated and controlled is the problem and until that changes, we are going to continue moving forward.” I acknowledged that there were teachers who had crossed the line in things they had said and done and that we had many behind the scenes conversations, encouraging them to be professional and constructive. I expressed that many teachers feel like they were treated like equipment and did not feel valued. “We obviously care a great deal about the district,” I said, “or we would not be risking everything to try to make

things better.” As difficult as it was to walk into some of those offices uninvited and unannounced, there was tremendous value in shaking hands and making face-to-face contacts.

Unable to sleep that night, I tried to figure out how we could find resolution without damaging anyone’s career. I realized that I could not control the actions of those in power, only my own. How they choose to proceed was up to them. And so far, district leadership had systematically validated our concerns with their responses—threatening teachers with insubordination, limiting computer access and other methods of communication, denial, and blaming Bryce, Dave, and me for the problems.

After he had specifically requested teachers send in details about their concerns in our meeting, the superintendent began to accuse teachers of “personal attacks.” Reporters from both the *Herald Journal*, and the *Salt Lake Tribune* could see right through the smokescreen. There would not have been a battle if the superintendent had simply said, “We had no idea morale was this bad in the district and we will do everything we can to change the culture for the better,” and then honestly set to work to make improvements.

The district office ignored repeated requests to move the January 10th board meeting to a larger venue. When the fire marshal became aware of the large number of people who were planning to attend, he called the superintendent and ordered him to move the board meeting to the high school auditorium.

The superintendent began the January 10th board meeting with a prepared statement. He apologized for what was going on and said that the district would work on the problems raised. Then he touted district test scores and recognitions administrators

had received. Several prepared comments from school board members and administrators followed. One administrator said, “I know a good superintendent when I see one and we’ve got a great one here.” I overheard someone behind me say, “This is a dog and pony show.” One board member grasped the reality of the situation, finally broke from the script: “This is a board issue and the board needs to gather information and the board needs to make a decision independently of the district to resolve these concerns.” More than 300 people broke out in applause.

The following morning the local paper ran a story titled “We will work diligently” (Wheeler, 2006) that read, in part (some names have been removed):

Hundreds of community members gathered Tuesday for a meeting that resulted in acknowledgment of responsibility for certain concerns in the District, a promise to find resolutions and the release of results from a union survey of teachers conducted last week.

The Superintendent told the teachers and parents in attendance that he and other officials know of the trust and communication issues that have been voiced in recent meetings, and promised to take responsibility in resolving them.

The Board President also presented a “public relations” plan for the school board, which included methods such as working with community councils, holding a January 24 study session to discuss ways to resolve issues and providing one-on-one opportunities for board members to meet with the public.

A Dec. 20 teacher meeting held after the resignation of Middle School Principal Dan Johnson — which was later rescinded — produced a long list of problems in the district from the 100-plus teachers in attendance. Details on that list ranged from teachers feeling micromanaged and mistrusted by administration and district office personnel, to teachers feeling there could be retribution for speaking out against district policies or actions. The group, led by three middle school teachers, had hoped those issues would be addressed at the Tuesday meeting.

Board member Lynn Hobbs said fear of speaking out is one of the key reasons he felt that only the board should handle complaints, as the majority of the complaints he has heard are directed toward just a few district officials.

“All teachers need an opportunity to voice their opinions,” he said after the

meeting.

Several teachers who attended the meeting Tuesday did not want The Herald Journal to use their names, but said they felt the meeting was superficial and “a bunch of talk.” While one said it was good to come and get information, she did not feel much would come of what happened during the two-hour meeting.

The Teacher Association President presented results from a 300-teacher survey conducted last week. More than 70 percent of teachers — both secondary and elementary — returned the survey, with a higher percentage of returned surveys from the elementary level.

From the elementary level, 67 percent reported fear of speaking openly about legitimate school concerns. Only 30 percent said they felt intimidated by their school administrator, while 75 percent said they felt that way about district administrators. More than 68 percent of the elementary teachers said they felt peers trusted previous district administrators more than they trust current ones.

On the secondary level, an overwhelming number felt they were treated professionally and trusted by their principal, but 71 percent said they trusted previous district administrators more than current ones. More than half also felt there is conflict between educators and district administrators regarding special services.

Also throughout the meeting, board members expressed appreciation for teachers and a desire to resolve issues. One Board Member said the entire district needs to “move forward and do what’s best for the kids.” She said it is often hard for school boards to meet state and national mandates while also catering to communities’ wants and needs, saying those two are not always synonymous. (Wheeler, 2006)

The following week, there were many late-night phone calls, impromptu conversations with parents or teachers in places like the produce section of the grocery store. We met with the parent group, administrators, teachers, and board members. Our goal was to achieve some resolution and to provide ideas for the district on how they might proceed. Those in leadership positions would say the right things, but then respond in opposite ways.

The long-term good we hoped would emerge was a mutual understanding of the

pressures that everyone was under in their respective roles, teachers feeling respected and valued, a work environment where teachers felt safe expressing concerns about administrative directives, and the protection of teacher autonomy. These core issues would have a tremendous impact on students.

January 19, 2006 the headline in the *Salt Lake Tribune* read, “Logan school official to retire.” The superintendent was not forced out. After 34 years in the district, he chose to retire. The article read, again, in part:

Parent activist Suzanne Noorda...said she saw no indication of [the superintendent’s] decision to retire when she met with him and several other district officials Tuesday to request an audience with the school board. Noorda said she invited [the superintendent], as well as the five members of the school board, to attend tonight’s meeting.

“We still have concerns at the elementary and secondary level that the school board needs to hear. Those have not gone away just because [the] superintendent has chosen to take early retirement,” Noorda said. “This is not about a person. This is about the issues.”

[The superintendent] said his determination to make changes in the district wouldn’t take an early retirement. He pledged his full support to resolve the problems identified by parents and teachers in the interim until the end of the school year. (Brunson, 2006)

Months later, in his final address to the school board (Logan City School District [LCSD], 2006), the Superintendent compared our efforts to a “lynch mob” that took “the law into their own hands” and “resorted to the politics of personal destruction with gossip, innuendo, rumors, personal attacks, harassment, and threats” (LCSD, 2006). Towards the end of his remarks, his tone changed, “Public Education is a human endeavor involving teachers, patrons, and parents. We must use participatory management where we listen, understand, value, appreciate, cooperate, and convince them that we do it best when it comes to public education” (LCSD, 2006). That was

precisely what we had asked for all along—yet it proved to be an impossible task.

Ten days later, the school board held a public forum at the middle school auditorium with several hundred people in attendance that evening. Twenty-eight people spoke out, asking the district to take the concerns seriously. Five individuals spoke in defense of the district—one of which accused Dr. Barry Noorda, Suzanne’s husband, of following the superintendent around to intimidate him.

Dr. Noorda responded, “I deliver babies for a living. I’m pretty busy—I’m lucky if I have a chance to glance at the ski report for thirty seconds during the day.” Laughter rolled through the auditorium. Ironically, it was the other way around. The superintendent showed up in Dr. Noorda’s office, unannounced, in the middle of the day, to confront Barry about something that had been printed in the *Herald Journal* (S. Noorda, interview, January 5, 2018). I had not planned to speak, but after the most aggressive administrator (who continued to send punitive and demeaning emails to us) spoke, she misrepresented some important events. It was the nudge I needed to take a turn at the microphone.

I began by stating that I was a parent of two children in an elementary school in the district, that I had taught in the elementary schools under three administrators whom I respect, though we disagreed in many ways. I explained that I was baffled that there was opposition to our attempts to bring concerns to light and I gave a brief history of my involvement—stating that this is not about people, but problems. “The people in place deserve an opportunity to fix the problems,” I said before acknowledging that the school board and district had recently taken a few steps in the right direction, and that those efforts were appreciated. Addressing the elementary teachers, I said, “We have opened

the door for you, but we cannot solve your problems for you—you will have to step up and communicate with administrators and board members yourselves.” I stressed the need for this process to be transparent—not opaque. Then I added, “Crisis is opportunity and we have the opportunity to be stronger as a district from this process—if we allow that to happen. To show good faith, I will now join the teacher association to show my support for them as they take the lead in this process” (The school board had encouraged us a number of times to go through the “proper channels,” meaning the teacher association). Before sitting down, I shook hands with the board members and thanked them for holding the meeting.

What the school board did not know, is how many times the Noorda’s and Dave, Bryce, and I had counseled teachers and community members not to submit comments or letters that crossed the line—comments that would do more harm than good, or that were not relevant to solving the issues at hand. Our behind-the-scenes communications and actions were focused on a constructive, but firm approach.

The following day the teacher association offered me a position as a building representative and I accepted. Progress seemed slow and it became apparent that those in district leadership roles were still stonewalling rather than addressing the issues of autonomy, respect, and an intimidating work environment.

February 7th, I wrote the following letter to clarify the issues to the community. My intent was to submit it to the local newspaper, but I ultimately decided to deliver it to the school board and the district administration instead (names of schools and individuals have been removed):

To Whom It May Concern:

It is now approaching eight weeks since Dave, Bryce, and I called a meeting at the middle school to discuss trust issues that exist between the district hierarchy and teachers and support staff in the school district.

I would like to clarify what the issues are and how this situation has escalated. The problems we have asked to be addressed could be summarized as trust issues regarding professional respect, professional autonomy, and intimidation.

Rather than listening attentively and striving to make things better, the energy has been focused on two smokescreens by claiming that we have (1) used personal attacks, and (2) that we have not used “proper channels” to air our concerns. Now, let me explain.

1) The Superintendent stated that he retired early to “end the politics of personal attacks.” A member of the school board repeatedly made reference to personal attacks in the newspaper and on the radio. Bryce, Dave and I met with the Board President and the Superintendent the first week of January and delivered the list of concerns that were formatted at our December meeting—we intentionally made the concerns vague so they would not point to specific people. In that meeting, they asked for specific examples of trust issues, lack of autonomy, lack of professional respect, and fear of retribution. When specifics began to arrive from various individuals, the board and district called them personal attacks.

Those in leadership positions must be able to accept criticism—especially when they ask for it directly. The parent group “Parents for Positive Change” has also been accused of delivering personal attacks. Board members specifically referred to the last three questions on the parent survey that asked teachers if they would support a vote of no confidence in the top district administrators. But the parent group kept those results confidential. They *did not report* the results of these questions during their meeting on January 19th nor did they present them at the Board Meeting January 24th. One parent made a fitting analogy when he said students do not take their grades from teachers as personal attacks and by the same token, administrators should not take evaluations by teachers as personal attacks.

2) The second diversion is the continual insistence that we as teachers and parents have not used proper channels to deliver our concerns. If proper channels were effective, this situation would never have escalated to the point it is now. In fact, the way in which the school board and various district and building administrators have responded to our attempts to be heard have only validated our concerns and driven our point home—for us. Examples include attempts by administrators to discourage educators from attending the December 20th meeting, the directive for

school administrators to confront elementary faculty members about the issues, and rather than responding to concerns they have diverted attention by saying we are not using proper channels. We are not going to be satisfied with false-front architecture—we want to see authentic changes built on a solid foundation.

Teachers concerns are real. The district's administrative approach is strikingly reminiscent of Frederick Taylor's Scientific Management philosophy used in schools a full century ago, in which administrators were infatuated with factory-like efficiency. This philosophy of management enslaved teachers and students to strict routines and was abandoned because it was at odds with democratic values. A study begun by the National Research Council in 1924 at Western Electric's Hawthorne Works inadvertently came to the conclusion that failure to appreciate the nature of the human element and its influence on group productivity was detrimental to progress. Teachers are craftsmen, not technicians and we can't flourish under micromanagement.

These conditions affect your children and mine and must be acknowledged and addressed for our district to move forward. Elementary school teachers are tired of being treated like dusty overhead projectors and Rizzo graph machines. Many teachers do not feel like there is any of *themselves* left in their teaching. They have no ownership in the programs that have been implemented. All these factors influence the quality of their teaching, which has a direct effect on students.

Within the past two weeks, administrators and the board have taken an important step in the right direction by shifting their focus from condemning those who have been outspoken, to seeking to understand the concerns. The ball is now in the hands of the district leadership.

Sincerely,
Eric Newell

After delivering the letter, Dave, Bryce, and I eased back and let the teacher association handle discussions from there. The Parents for Positive Change group continued to be active and effective in monitoring and communicated with the district. The following school year Dan accepted a job as Assistant Superintendent in Tooele School District—a logical career move. Over the summer, two school board members' terms expired. One did not seek reelection and the other incumbent lost to a challenger. Three school administrators (including the one who had been particularly vindictive)

retired. The district hired a new superintendent. We pulled back to give him a fresh start and an opportunity to succeed as a leader. I became the teacher association president-elect and served in association leadership (president-elect, president, and past-president) for 3 years—which coincided with the new arrival of our new superintendent and our new business administrator.

All the while Bryce retained his opposition to teacher associations because “teachers’ unions protect teachers, not students.” I welcomed his perspective to help balance my own, and kept my focus on students. Dave Anderson, who was a member of the district negotiating team, and I worked regularly with the new district administration in contract and policy negotiations. Though we were not always successful, we made a concerted effort to mend bridges and to build a positive culture in the district. One of the important outcomes we hoped for was a standard administrative evaluation that teachers would complete each year on their principals and district administration, as an avenue for leadership feedback. Though this failed—conditions for teachers did improve.

This account represents my perspective on the events that unfolded within our district during a tumultuous time. In an article in *Curriculum Theory and Practice*, Dr. Miller makes a pertinent point. “There are many ways of seeing. Each has an element of truth, but none may be the whole truth.... All incoming data is refracted and discolored by the prism of our own personal understanding and experiences” (Miller, 2011, p. 35). With this in mind, there are undoubtedly other sides to the story, but I made every effort to be as objective as possible.

We were brazen at times. We made some enemies. But we are glad we took a

stand. In many ways, we probably had more in common with the district leadership than differences. We all wanted to give our students and children the best education we were capable of providing. District Administrators were under pressure to meet state and federal requirements. Those two goals should not be mutually exclusive. Ultimately, what divided us was the No Child Left Behind legislation. The testing pressure associated with it was at odds with what many teachers viewed as best practices in the classroom.

This story provides a glimpse of how one western community grappled with these pressures. University of Sheffield (United Kingdom) education professor Wilfred Carr (1993) wrote;

The way in which the curriculum is made and remade—the process of curriculum change—is essentially a process of contestation and struggle between individuals and social groups whose different views about the curriculum reflect their different views about the good society and how it may be created. (p. 7)

John Dewey (1901) wrote;

No matter what is the accepted precept and theory, no matter what the legislation of the school board or the mandate of the school superintendent, the reality of education is found in the personal and face-to-face contact of teacher and child. (p. 338)

I hold out hope that we can achieve an equilibrium in public education between accountability and autonomy, that there is room for those who choose to offer holistic, constructivist-rooted programs to serve students.

Although this segment of our careers may seem detached from the rest of the narrative, it demonstrates how hard we fought and how much we were willing to risk to teach in a way that we believed would positively impact our students and that was true to our educational philosophy. Had we been complacent and just “done what were told,” as

one teacher expressed to us, the rest of our journey, told on the pages ahead, would not have been possible.

Castles in the Air

If you have built castles in the air, your work need not be
lost, now put the foundations under them.
- Henry David Thoreau, *Walden*

Though it could have easily backfired, our willingness to take a stand opened doors and set the stage for the years ahead. The new superintendent brought a fresh perspective. He asked us to present our summer program to the school board for approval so it could be run through the district again, instead of through 4H. The board approved it unanimously. By this time, Dave, Bryce, John, and I had been running summer programs for four summers together—Bryce and Dave even longer. The four of us talked frequently about the changes we saw in students, especially those who struggled socially or academically—or both. Bryce and I (because we taught sixth-grade science together), increasingly schemed about bringing our summer school model to our classrooms during the school year. We just did not know exactly how it would take shape.

Dave Swenson, who had been an assistant principal at the middle school for just a year, became our new principal. We did not know a lot about him. So, when we invited him to join us for our Bringing Literature to Life “River Rats” summer school program we were not sure what his response would be. He beamed and asked, “Can I bring my raft?” And he did. It was a 30-year-old boat and it exploded that summer, in the hot sun, on the launch ramp at Pacific Creek in Grand Teton National Park. We all took our hats

off, teachers and students, and had a moment of silence for the raft. “It was a good boat,” Swenson said, in the saddest voice he could. All the students laughed.

That night in camp, after the students were all in their tents, we revealed our idea to apply our summer approach to a school-year program. Swenson listened carefully. He slowly nodded his head in the firelight and said, “I hated school when I was kid. I felt like a ‘dumbbell’—that’s the word I used. The only reason I made it through high school is because I was the running back on the football team” (D. Swenson, interview, January 6, 2018). At the time, he idolized Chicago Bears running back Gale Sayers. “He ran hurdles in high school, so I ran hurdles. Gale ate six eggs for breakfast, so I started eating six eggs for breakfast” (D. Swenson, interview, January 6, 2018). Swenson had never read a book all the way through until his junior year when his math teacher walked past, and without a word set *I Am Third* on his desk—a book about Gale Sayers. Dave laughed and then said, “Luckily it had pictures in the middle and I browsed through them. That night I started reading” (D. Swenson, interview, January 6, 2018). By the time Dave finished the book a few weeks later he realized that he was not a “dumbbell.” His math teacher had changed his life. “What I’m trying to say is that I like what you are thinking. This is the kind of stuff kids need. Let’s figure out if we can make it work” (D. Swenson, interview, January 6, 2018).

In early September, Bryce and I received permission to take three professional development days and shadow the Teton Science Journeys School on their three-day middle school excursion to Yellowstone National Park. The two of us spent a day observing classroom teachers before we headed up to Yellowstone with them the

following day. Our second night in Yellowstone, Bryce and I walked the campground loop, talking about what we observed that day and what we wanted to apply to our own professional practice. We started to refine details about our program. The big question remaining was how we would convince the district administration to allow us to try.

A school bus parked in the group campsite area had Oregon plates. All the students were attending a Park Ranger presentation in the campground amphitheater about wildfire, but one adult remained in camp, tiding up. He told us that this was a high school program in Oregon that he founded (I do not remember the name of the school or the name of the town and I have not had success finding it online). It was a 2-year alternate high school for advanced juniors and seniors, who had to apply for admission. “The key,” he said, “is that we knew we had to present our program as a solution to existing problems in the district.” He explained that the high school in the district was suffering from overcrowding, that parents had been pestering the district to create a gifted and talented program in the high school, and there was also an elementary school in the district that was not in use. He and his colleagues pitched their idea to the district, proposing that they take about 200 students from the high school and create an advanced science program utilizing the empty building. Within 2 years, they were up and running. This chance encounter filled the missing link in our own plans. We had to sell our idea as a solution to existing problems in the district.

During the last day of our professional development with the Journey’s School and during the long drive back to Logan, Bryce and I talked nonstop, ironing out the details of our plan, refining our ideas and our strategy to make our dream a reality. We

knew we had fluency data from our summer programs. We had observed students' motivation increase in our summer programs--specifically, our students were volunteering to read, engaging in more in-depth discussions about books, and putting more effort into writing. Another theme that surfaced repeatedly was relationships—that outdoor experiences fostered both positive peer relationships and student-teacher relationships. In summer school, science concepts appeared to stick with students better because they were taught in authentic contexts. From our experiences during the school year with field programs, we also knew that pulling students out of other teachers' classes for field trips created conflict and caused them stress.

Bryce recounted a story about a former student, several years back, who was failing all of his other classes at the middle school except for science. Bryce had a field trip experience planned and another teacher approached Bryce and asked him not to let the failing student go, as a punishment. Bryce had the wherewithal to ask, "If he stays here for the field trip and attends your class, will he be able to earn a passing grade?"

"No," The teacher replied.

"Then what good will it accomplish if he stays here?" Bryce asked in return. "I am not comfortable punishing students in my class, for an issue that happened in your class."

Bryce ended up taking the student. From several encounters such as this, we knew if our program was going to be successful that we could not pull students from other classes for our field experiences. Because we were elementary teachers (even though we taught middle school sixth-grade science), according to the state we were "highly

qualified” (to use their term) to teach all subjects. This would allow us to integrate other subjects into a larger block of time. We settled on science, language arts, and social studies and creating a three-period block before lunch, and a three-period block after lunch. This would give us almost a two and half hour block of time, both in the morning and in the afternoon, to work with students each day.

The previous school year, we received permission to drive small groups of students in our own vehicles on short outings up Logan Canyon (this is no longer allowed). Bryce and I both drove early 1990’s era Ford Explorers. Mine had 215,000 miles. The odometer had stopped working on Bryce’s Explorer at 245,000 miles. Our other teaching partner, Cassie, owned a brand-new Lincoln Navigator. At the end of the day, the three of us drove down the canyon, caravan style, with Cassie in the lead. I was right behind her and Bryce was bringing up the rear. It probably is not difficult to surmise in which vehicle a kid succumbed to car sickness and spewed projectile vomit all over the interior. Cassie suddenly pulled into a dirt turnout, sending up a cloud of dust. I did not dare pull out into the smokescreen for fear of rear-ending her, so I continued down the road. Bryce managed to pull over. Back at school he said to me, “I just told the poor kid to get in the river to clean up—he was covered in barf nearly from head to toe.” Even though that day ended badly, we knew from the successes of these kinds of outings (minus the barfing, of course) that small group field experiences, as we preferred to call them, were far more effective than traditional field trips with a busload of kids.

With 450 students in sixth grade, we had to find a way to limit enrollment. Our thought was to have a group of about 40 students in a combined classroom for each 3-

hour block. One of us would take a 12-passenger van with 11 students out on “mini” 2-hour field programs each day and the other would stay back in the classroom with the remaining thirty students. This plan would allow us to serve a total of 80 students. Sixty of these would-be students who were identified as struggling, based on end of level test scores, fifth-grade teacher recommendations, and reading assessments. This would justify our smaller class size—which would come out to about twenty students per teacher. At the time, average class size in the middle school was about twenty-five students per teacher. Additionally, in response to growing demand from parents to provide gifted services to students at the middle school, twenty accelerated students would be included to serve as peer tutors. It was not perfect but we thought it would be workable. We also eyed the old portable classrooms on the edge of the soccer field at the middle school. No one liked being out in the portables and if we could get the wall knocked out between the two halves, we’d have the ideal setting. The roof only leaked when it rained.

We discussed several different names for our program. We kept returning to the idea of having a Lewis and Clark theme (the bicentennial of the expedition was near) and we considered the “Corps of Discovery,” but it did not quite sound right. One of us eventually asked, “What about Mount Logan Discovery?” We both nodded. Mount Logan Discovery it would be.

We brainstormed real problems in the district for which our program could offer a viable solution. When pitching our ideas to administrators in the past, we had been told “No,” “Maybe,” and “Not yet.” All with good reason. Each time we listened carefully to the concerns administrators expressed. Then we would scheme and think, and return

ready to pitch a variation on our program idea that addressed the previous concerns—always with smiles. In his book, *The Last Lecture*, Randy Pausch (2008) describes these kinds of setbacks as brick walls. He wrote, “Brick walls exist so we can find out how bad we want something” (p. 113). A teacher once said to me, “You and Bryce get whatever you want. It’s not fair.” I looked at her and smiled. Then I said, “Actually, I think we’ve been told ‘No’ more than anyone else. We just keep asking, that’s all.”

Two or 3 weeks later, Bryce and I made an appointment and pitched the rough details of Mount Logan Discovery to Principal Swenson. After asking several probing questions, he looked at us with high interest and said, why do not you write a proposal? We dropped it on his desk within 2 weeks.

Overcrowding was an issue at the middle school and that there was pressure from parents to provide gifted and talented services. We also knew large portions of sixth-graders lagged behind academically. Bryce mined the school district testing database and found several critical bits of information: (1) 27% of sixth-grade students who had been enrolled in the district for third through fifth grades were scoring a one (out of four) on end of level standardized tests in at least one core subject area; (2) 13% of seniors in district were not able to pass the Utah Basic Skills Competency Test (UBSCT) in reading and writing; (3) According to Gates MacGinitie test results, 36% of sixth-graders entering the middle school were two or more years below grade level in reading, excluding students who qualify for special education services or who are classified as severe ELL (English Language Learners). In simple terms, one third of all regular education students entering our middle school had significant deficiencies in reading. Our

unearthing was consistent with the findings of education researchers: The traditional structure used to teach in our elementary schools does not reach large segments of student bodies (Curtis, 2002; Graham & Perin, 2007; Kamil et al, 2008; Marzano, 2004).

The Carnegie Report, *Reading Next*, describes 15 elements of effective middle school literacy instruction based on meta-analysis of research conducted on adolescent literacy programs (Biancarosa & Snow, 2006, p. 121). They are:

1. Direct, explicit comprehension instruction;
2. Effective language arts instructional principals embedded in integrated contexts;
3. Motivation and self-directed learning;
4. Text-based collaborative learning;
5. Strategic tutoring;
6. Utilize texts that have diverse reading levels and topics;
7. Intensive writing instruction;
8. Technology component for literacy instruction;
9. Ongoing formative assessment of literacy skills;
10. Extended time—two to four hours—for literacy instruction each day;
11. Long-term professional development;
12. Ongoing summative assessment of student performance;
13. Interdisciplinary teacher teams that plan and coordinate instruction;
14. Leadership in implementing best practices by teachers with a solid understanding of how to teach reading and writing; and
15. A comprehensive interdisciplinary literacy program that coordinates with out-of-school organizations and the local community.

Our summer program incorporated about nine of the recommended instructional practices

listed and we were confident we could employ all fifteen with Mount Logan Discovery during the school year.

The school board agreed to review and vote on our proposal (Appendix C) for the creation of Mount Logan Discovery during the January 2008 board meeting. Before the meeting, another teacher told me that the school board would never approve our plan, because of our outspoken past. I brushed it off. I believed that the board would understand that our intent during that tumultuous time was to try to make things better, as painful as that process was for everyone. I also believed that we all shared the same ultimate goal of providing the best possible education for students in the district, and that if Bryce and I could make a convincing case, they would approve our request.

When the meeting convened, as anticipated, the board grilled us about risk management for our outdoor activities. “We have a perfect track record with safety in our summer programs,” Bryce said, “except for one sprained ankle on a six-foot high teeter-totter in at the city park in Soda Springs, Idaho—where we stop for lunch on our way to the Tetons each summer. We think it’s the last city park in American that personal injury attorneys have not found.” After a ripple of laughter, Bryce continued:

As a school board, you are comfortable placing kids at home plate with 50 mile-an-hour fastballs coming at them, or having cheerleaders do acrobatic somersaults without a safety nets or padding. You do not have any problem with our high school football team. Every year kids participate in these kinds of sports activities throughout the country and there are known cases of broken bones, paralysis, and even death. These are considered acceptable risks.

We explained that we do not have anything against team sports, but they also do not have any direct academic purpose. We then shared our background as former guides and instructors with outdoor pursuits and our training with risk management. “What we

propose to do with students—taking them outside for field programs—has explicit and direct academic objectives for students, which we have demonstrated with our summer programs.” Then I added, “And if we are going to reach at-risk students, we must be willing to take risks.” The board understood that I did not mean we should take safety risks, but that we must be willing to take risks as educators providing services for our students. If we are going to have a lasting impact on all students, we must be willing to step away from traditional approaches that have not worked in the past. The school board voted unanimously to allow us to proceed for 2008-2009 school year.

That winter and spring we visited with each of the fifth-grade teams at all six elementary schools in the district, gave them information about Mount Logan Discovery, and built our class lists with their assistance. We ironed out details and wrote grants for supplies such as classroom sets of books. We also communicated with the district maintenance crew on removal of the wall in the portable classroom so we’d have one large open space for instruction. In May, we sent invitations and made personal calls to each of our new students to participate in our “Summer Discovery River Rats” summer programs—we had secured grant funding to offer three sessions, each of which cost about \$10,000 to run for 2 weeks. The description read:

Spend two weeks with us and you’ll never look at moving water in the same way again—just do not expect to sit around like a delinquent Huck Finn. We’ll listen to various excerpts from the best literature about rivers, write and sketch in field journals, learn how to paddle a canoe, row a boat, and make first-hand observations of the way rivers sort rocks, pebbles, and sand meticulously by size. Understand the math behind figuring the volume and velocity of rivers. Come prepared to hike, camp, work hard, to hang onto your hat! (Mount Logan Discovery, n.d.)

One of our main goals of our summer programs was to ease the transition for students

entering the middle school. That summer, nearly two-thirds of our students who were enrolled in our inaugural session of Mount Logan Discovery participated in our summer programs. By the time classes began in the fall, many of our students had created valuable friendships with one another and we had established relationships and expectations with our students. We carried this momentum into the school year.

Practice-Based Evidence

The mantra in public education is that instructional practices must be research-based. During the formation of Discovery, we were asked by various individuals if existing research supported our Discovery model. At one point Bryce and I were discussing this topic during a collaboration session on the ski lift at Beaver Mountain (we hatched and refined our best ideas outside). I asked Bryce—though it was more of a statement than a question: “If everything must be based on prior research can there ever be innovation?” Our resulting discussion lasted for several ski runs.

We had good reason to believe Discovery would work based on three factors. First, our understanding of research-based practices such as the Reading Next Carnegie Report (Biancarosa & Snow, 2006) and Marzano’s (2004) work on Building Background Knowledge. Our understanding of our students’ needs was a second piece. The final factor was our own experiences as educators—our observations of student behavior, motivation, academic progress, and our fluency data from summer school. We were implementing the idea of practice-based evidence (Cook & Cook, 2016) where educators drive instructional practice based on “(a) the best available research evidence, (b) the

values and goals of learners and their families, and (c) practitioners' professional judgment" (Cook & Cook, 2016, p. 143). We were excited to finally stop talking about building a program, and put our ideas into practice.

Discovery in Praxis

*Play the game for more than you can afford to lose—
only then will you learn the game.*
- Winston Churchill

A week before school started in August, 2008, ceiling tiles, paneling scraps, and assorted construction garbage were strewn about the floor of our portable classroom. Light sockets and wires dangled from holes in the ceiling. The carpet had not been replaced, but at least the wall had been removed. Despite a concerted effort, our attempts to secure a grant to purchase a 12-passenger van had failed. Regardless, we were optimistic and excited to begin Mount Logan Discovery. The district administration and Principal Swenson had given us 100% ownership. The trust they extended was exceptionally motivating. Bryce and I were keenly aware that the school had hired a new science teacher to fill the void we left in the traditional sixth-grade schedule. If Discovery was not successful, we would likely be the ones looking for a position elsewhere. "They gave us enough rope to hang ourselves," Bryce joked. Once again, we were gambling with our careers.

The portable classroom had a small covered deck to shelter the entryway. With the electricians and carpet crew busy inside, Bryce and I bought two plastic red Adirondack chairs, set them on the deck, sat down, and commenced planning for our first

official teacher work day. The next day the portable classroom remodel was complete. Without a vehicle for the program, the district gave us the okay to reserve the district minivans that were used for teachers traveling to conferences or professional development. We had to call the week prior, find out what days were open, and then schedule the minivan—which averaged 3 to 4 days each week. This limited us to six students at a time for field experiences (Appendix D) and prevented us from getting a group out every day—both of which presented complications for our model. Whichever one of us was back in the classroom would have a larger class load than we had planned and the inconsistencies with days the mini-van was available made planning difficult.

For reasons I cannot recall, we decided to alternate every other day leading students on the field experiences and being in the classroom with the remainder of the class every other day. Students who were in the field would make up the classroom work they missed while they were gone. Logistically, it sounds complex, and it was—but it was the best plan we could muster. We created a blanket field trip permission form, for parents to sign at the start of the year, authorizing us to take their children on field programs each week. We posted field experience destinations and a schedule online for parents to view.

Bryce took our first field group out on the second day of school, shooting bows and arrows to introduce the book, *Obsidian*, to our students. *Obsidian* is the story of a Shoshone boy with a physical disability, who overcomes bullying and eventually becomes known as The Arrowmaker in his tribe, for his fine skills making points. Turning weaknesses into strengths and accepting others are strong themes in the book

that allowed us to proactively teach students about bullying.

About 6 weeks into the school year, Bryce and I sat down in our Adirondack chairs on the deck after school, scratching our heads. We had kinks to work out. The field programs were working well, but availability of the district vans was inconsistent. Being in the classroom and in the field every other day made it difficult to maintain continuity in the classroom, and having students make up the work they missed in class was daunting for us to keep track of and for students to complete. Developing Discovery required that we think far outside of the traditional educational box, but it was still difficult for us to let go of some mindsets, specifically, shaking the idea that every student had to do the same thing every day.

We decided to make two important changes. First, we would alternate being in the classroom and taking the field group out on a weekly basis, rather than a daily basis. That move created needed consistency in the classroom for us to deliver quality instruction. Secondly, students who were in the field group each day would usually be exempt from the daily assignments they missed. To compensate, whichever one of us was leading the field program that day would work concepts from that learning objective into our field experience. This was not as disruptive to learning as it sounds because we frequently engaged students in projects that took several days or even weeks to complete. It also forced us to be more conscious about continually reviewing concepts we had taught the previous day and revisiting the most important concepts throughout the year. The changes worked.

Earning Our Wheels

That same week, Suzanne Noorda, one of the parents who had spearheaded the Parents for Positive Change group several years before, asked if she could meet with us. Both of her kids participated in our summer learning programs in the past, the youngest was now in seventh grade. Neither would be able to participate in Discovery. Suzanne wanted to know what we needed, expressing that she and her family would like to make a contribution of some kind. Jokingly, Bryce made a comment about needing a 12-passenger van. We thanked her and talked about our need for things like classroom sets of novels or eight pair of snowshoes. After about a half hour, she told us she'd think about the options, talk to her husband and family, and get back to us. About a week later she stopped by and said, "Gentlemen, our family would like to donate funds to purchase a used van for Discovery." Bryce and I just about fell off of our chairs.

It was more difficult to get the school district to accept a contribution for a vehicle, than it was to find a donor willing to purchase one. We set up a meeting with the district curriculum director Dr. Mike Monson, the new superintendent, and the new business administrator to talk about the donation. At first the superintendent and the business administrator told us we could not have a van. Among other concerns, they had referenced a recent fatal 15-passenger van rollover carrying USU Agricultural Science students and said that state risk management would not allow any state entities to use 12- or 15-passenger vans anymore.

Undeterred I asked, "What if we pulled the back bench out, so it was a nine-passenger van?"

The business administrator shook his head. “No. That wouldn’t work. Any vehicle that is manufactured to seat more than nine people is off limits unless you go to a school bus equipped with flashing lights and swinging stop signs. In that case, you’d also need a CDL (Commercial Driver License) to operate it.” We were not about to give up. Like water behind a dam, we were determined to find a way over, around, under, or through barriers.

Before I could say we’d be willing to get our CDL’s, the business administrator turned his head slightly to the side and said, “You know, what would be perfect for you guys is a nine-passenger Suburban. I used to have one of those—that thing lasted forever.” A burst of hope emerged, but we withheld our grins. The curriculum director, Dr. Monson, who also oversaw the maintenance department, had been quiet for most of the meeting chimed in, and said that adding one more vehicle to the fleet really would not cost the district any more to maintain and insure. He was willing to take on that responsibility.

The superintendent turned to us and said, “Why do not you two do some research and find out how much you can get a good used nine-seater Suburban for and get back to us.” The meeting ended with everyone smiling. We stood up and shook hands.

With the Noorda’s generous contribution of \$7,000 we purchased a 1999 nine-seat white Chevrolet Suburban with gold trim that had about 96,000 miles on the odometer. The district mechanic had looked at and rejected a couple of other similar Suburbans we had found. He liked this one. We felt that we had just been given wings—in the form of wheels. We could now take eight students out at a time for our field

programs, enabling us to get every student out once a week—a perfect fit for our field program rotation. With all our technical challenges now solved, we could focus exclusively on developing quality instruction and meaningful field programs for our students.

Reaching this point had been an exhausting task. We had negotiated a number of crucial passages after we received approval to start Discovery, back in January. One of which was making room for Discovery in the scheduling matrix at the largest middle school in the state of Utah. Before our proposal, all students in sixth, seventh, and eighth grades attended seven separate courses each day. Accommodating 1,400 students involved a complicated assortment of electives and required courses. Our plan—to offer two three-period blocks of science, language arts, and social studies—created a scheduling nightmare. For Discovery to work, we needed the morning session to fill the first three periods of the day, then have lunch and our prep time blocked together, and then the afternoon group would fill the last three periods of the day. Had the school registrar, Brenda Barkle—a soft-spoken and unassuming secretary at the school—said, “Sorry guys, it is just too hard to figure this out,” Discovery would never have become a reality. But Brenda, and her sparkling eyes, set to work, spending hours of her spare time on the computer until she proudly found a solution.

There were many people like Brenda, the curriculum director Dr. Mike Monson, and the Noorda family, who worked quietly behind the scenes to give Discovery life. There was also the meticulous and ornery district mechanic, who happily kept our Suburban in tip-top shape—doing everything from regular maintenance to replacing our

fuel pump in an hour flat (at 7 A.M. one morning) so we could get our summer school students off to the Tetons on time. He once chided me for buying new windshield wipers and installing them on the Suburban while we were in Grand Teton National Park. The mechanic would go out of his way to make sure vehicle maintenance did not interfere with our field programs. He'd smile and joke with us, revealing a side of him that few others knew. This is the same man who refused to stop mowing the middle school lawn during school hours and, when finally confronted because the mower was so loud it interfered with adjacent classrooms, told our principal, "You can shove this riding lawn mower right up your ass." And then he kept on mowing.

Striding Forward

By mid-October, Mount Logan Discovery was thriving. Our field programs were building essential background knowledge for our students and providing context for the books we read as a class (see book list in Appendix E). Science and social studies concepts were integrated both in the field and in the classroom. Every student was worked hard academically. The advanced students were challenged sufficiently and the struggling students were blossoming. Most students did not know there was a difference in their academic status. For the first time in our careers Bryce and I felt like we were reaching each one of our students.

We credit the small group field experiences as the catalyst for the successes we observed. For example, while reading *Hatchet* by Gary Paulsen, a fictional story about a boy who survives a small plane crash in the remote Canadian woods and suddenly finds

himself alone in the wilderness, we visited the local airport. Enroute, students would take turns reading aloud from *Hatchet*, while the other six or seven students followed along. Our drive time for field experiences rarely exceeded ten minutes—a short enough ride that we never had issues with car sickness. At the airport, Leading Edge Aviation pilots allowed our students to sit inside the cockpit of a Cessna single-engine airplane. Our students learned about flight, were exposed to careers in aviation, and acquired background knowledge regarding the flight references in the book—so the text was more meaningful. Every field experience had a writing-mini lesson followed by journaling time. On the way back to school, students volunteered to share their writing aloud and watched a short video clip on flight on the Suburban DVD player.

The following week we ventured to various Logan Canyon campgrounds with students and challenge them to build a flint and steel fire while we read about Brian, the main character, and his attempts to build a fire using only his hatchet and the rocks at hand. Once students created a fire (sometimes with help), we roasted marshmallows and taught them about the three types of heat transfer from our science curriculum, conduction, convection and radiation. To wrap up, students wrote about the whole experience, with sticky marshmallow fingers. Then we'd head back to school. The whole experience lasted about two hours. Back in the classroom, students polished their entries in a writers' workshop format, learned science concepts in more depth, and mastered academic and book-specific vocabulary through direct instruction. In this way, we integrated content from all our subject areas into meaningful field programs and purposeful classroom instruction.

The first week of school we had a student who had refused to have his parents sign the field experience release form. He was very withdrawn socially, one of our lowest performing students, and had come to us with a strong warning from his fifth-grade teacher that we would not be able to get him to do anything in class.

“I do not like field trips,” he told us defiantly.

Bryce shrugged and said, “Well, let us know if you change your mind.” We knew we needed to have a good relationship with him before he’d be willing trust us enough to learn. We could not force him. So, we let him stay back on the days it was his turn to join a field group. Several weeks later, after hearing the other students talk about the flint and steel fire experience, he changed his mind. The day before his group was to go out again, he handed me the signed form with a smile, and said, “I’d like to go tomorrow.” Two weeks later, on a canoeing field experience on the Little Bear River, the boy sat in the front seat of the Suburban. As Bryce drove along Valley View Highway, with marsh on both sides of the road, the boy turned to Bryce and said, “Do you like to fish much?”

Bryce smiled and replied, “I used to, but I do not anymore. How about you?”

The boy looked at his feet. Then looked out the window before saying, “I used to—until my dad killed himself.” Cattails whizzed past the windows on either side of the Suburban. A tear rolled down the student’s cheek. When you go through a teacher education program, they never tell you how many times you will have your heart broken by the things you learn about your students. But this was a turning point. We had earned his trust. That conversation would not have happened in a classroom while working through scripted reading programs. From that day forward, this young man cared

increasingly and completed assignments. He gradually interacted more openly with other students. By the end of the year had created good friendships with peers and made strong gains academically. He even told us he liked school on multiple occasions.

There were many success stories like this one. Some students took longer than others to turn their corners. We started each class with the “Word of the Day,” where we introduced vocabulary words that students would encounter during the chapters they would read that day. This involved a Power Point slide with photos, a definition, and either a very brief video clip or a story that Bryce or I would share. Then we’d have students free write a story—fact or fiction—for about ten minutes about the words. One morning in late November, students were volunteering to share their word of the day writing aloud. A student who had severe academic struggles and who had been in foster care on and off through most of her life, suddenly burst out, “It’s sure nice to be in a class with all the smart kids for change!”

A Creed

In the evenings, I was enrolled in a Taekwondo class with my twin boys who were 9 years old. At the start of every class we all stood at attention and recited a creed. Each evening in Taekwondo, the idea of a creed, instead of a list of classroom rules, grew on me until one Sunday afternoon, while walking in the foothills behind my house, I came up with a creed for Discovery.

*We are Discovery.
We are committed to success through persistence, practice, and patience.
We listen for understanding. We respect differences. We speak carefully.
We are united in friendship.*

Bryce printed and laminated copies of the creed and taped them to every desk and on every student's field journal. We could address any behavior issues that arose in the classroom by referencing the creed. In this way, we were able to view misbehaviors as an opportunity to teach students rather than to punish them. This shift, from the punitive environments and downward spirals many of our students had been caught in the past, was crucial to our students' desire to learn.

Patience, kindness, and firmness were the foundation of our classroom management approach. We learned from our summer programs that those who are rowing the boat are seldom the ones rocking the boat. For this reason, we involved students in decision making processes whenever possible. Class meetings lasted from five to fifteen minutes each day and developed student ownership and a strong sense of community in the classroom. Teachers and students placed notes in our "Community Compliments and Concerns" can, which we read during class meetings or whenever we had a few extra minutes in the schedule. We encouraged students to write compliments that detailed specific things others had done, rather than focusing on appearances or things (like fancy new shoes). Many concerns students submitted were handled in private, usually out on the deck in the Adirondack chairs. For general concerns that involved the whole class, we discussed the difference between punishments and solutions and then allowed students to create resolutions within established ground rules.

Bringing Literature to Life

When I taught fifth grade, I worked with the lowest struggling readers and was

forced, as I described much earlier in the story, to use a scripted program to teach reading. Student test scores increased at the end of the year, but I felt that the contrived nature of the script and the confining parameters of how and when I was to deliver instruction combined to demoralize my students—and myself. I also suspected that any short-term gains were negated in the long run by destroying student's love of reading. Paradoxically, in Discovery we worked with a similar slice of students and found success employing a completely opposite approach—based on a holistic, constructivist philosophy.

In Discovery, we read 18 novels each school year—more than 3,000 pages—averaging one book about every 2 to 3 weeks. Many of our students had never previously read a single chapter book. We chose books that fit our curriculum standards and that included main characters our students could identify with—characters who came from broken homes and stable homes, ethnic minorities, boys and girls, rich and poor. Some titles were classics such as *Island of the Blue Dolphins*, *Esperanza Rising*, and *Hatchet*, others were more obscure, such as *Obsidian*, *Cat Running*, and *The Education of Little Tree*. We read some parts, intentionally, aloud to the whole class, when we wanted to model certain reading strategies to our students by thinking aloud, or when we wanted to discuss specific topics. But the majority of the time, students read in partnerships strategically paired—matching stronger readers with weaker ones—and then completed various summary activities for accountability.

Because we had so much at stake, we consumed research that ferreted out best practices on adolescent literacy. We paid careful attention to data—more than either of us

had before—and probably more than most other teachers in the district. We collected reading data on our students from the elementary schools and we had the literacy coach test our students throughout the year using the Gates-MacGinitie reading assessment. We advocated for consistency in the district reading assessments, because the elementary schools were using different reading assessments than the middle school. Eventually the district adopted the digital Scholastic Reading Inventory (SRI) for all grades, which brought much needed uniformity. We also paid careful attention to end of level test results.

At the end of the first school year, our students had made reading gains averaging 2.6 grade levels (Appendix F). During the 2009-2010 school year, we had larger enrollment and a different batch of students. Their reading gains were not as impressive, but still respectable, at 1.5 grade levels—especially considering that the large majority of them started out two grade levels behind in reading ability. Our preliminary analysis of the end of level Criterion Referenced Tests (CRT) in language arts indicated that our students outperformed the rest of the sixth-grade by about six percent.

The problem with the way CRT test results were reported is that students in each class are different and the tests did not take into account the individual growth of each child—or at least the district did not report this information to us. This kind of data served as an indicator that we were achieving the results we desired, but it was not proof. Our observations of individual students' attitudes and effort was more satisfying and more telling. I do not believe our results took anything away from the other teachers at the middle school—they were doing good work. But some teachers felt threatened by our

success.

When I tell people about Discovery, they frequently ask, “Yes, but how did your students do on the standardized tests?” I find this perplexing. I understand the importance of accountability and I’m not afraid of accountability in any sense. But the general public has collectively bought into the fallacy that the end goal of education is quantifiable test scores. My standard response, therefore, has always been, “Our students take the same standardized tests as every other sixth-grader in the state of Utah and they test just as well, and sometimes better, than their peers—and many of them closed significant gaps to get there.”

The larger issue with the way test scores are heralded, is that from the most basic and elementary scientific model, judging teachers and schools on test score benchmarks is flawed. You cannot compare last years’ fifth-grade scores to this years’ fifth-grade scores because the students are not the same—that adds a second independent variable to the equation. 74% competency in one class of students might represent significantly larger gains than 92% competency in another class. If we are going to continue to allow standardized testing to drive evaluation of schools, teachers, and students, we must move away from achievement benchmark percentages and focus the growth of individual students from year to year.

Misunderstandings

A middle school teacher stopped me the hallway one morning and told me, in very direct terms, that, “You and Bryce are rewarding the bad kids and it is not fair to the

good kids.” His comment rattled me. I paused, pushed several thoughts out of my mind, and then said, “Mr. Franken, we do not have *bad* kids in our program. We have *good* kids who have not been successful in the traditional system and we are trying to give them a chance to shine.” Over the years, I was surprised at the pushback that we received from a handful of other teachers in the middle school. I worked hard to have good relationships with colleagues. That has always been important to me. When I suspected that a department, or a grade level team had criticisms or misunderstandings about Discovery, I’d take my lunch to their rooms and eat with them. I wanted to clarify misconceptions and I wanted to understand well-founded criticisms.

For example, at one of these informal lunches, a teacher expressed that it was not fair that the district bought a Suburban for Discovery. Bryce and I had no idea that perception existed—but I learned in that conversation that it was a widespread belief throughout the school. After explaining that the Suburban was purchased through a private donation, I contacted the Noorda’s—who were never interested in recognition—and asked if they would be okay if we placed a sticker on the back of the Suburban, beneath the Discovery logo, that said, “A generous gift from the Noorda Family.” Little things like this were important to keep Discovery rolling and we could not afford to brush them aside.

Public education is often like a well-manicured lawn cut to the same length—everyone is expected to do the same thing, at the same time, in the same way. This tends to be true of the way administration (school, district, state, and even legislatures) treats teachers and teachers treat students. There are exceptions, and I’ve been fortunate to

work under local administrators who embrace creative approaches. But in many cases, if you grow a little taller, if you teach or learn a little differently, the mower comes along and whacks everything the same height once again.

I prefer to view education as a mountain meadow, rather than a lawn, where diverse plants grow to various heights and bloom at various times. Our job, as educators is to cultivate the meadow. The lawn metaphor represents uniformity, standardization, and conformity while the meadow metaphor embraces differentiation, individuality, and creativity. The role of educators and administrators is to nurture curiosity, confidence, social responsibility, independent learning skills, and to celebrate growth and success in its many forms. In his book, *The Element*, Sir Ken Robinson, captures this idea. “Farmers



Photo 12. A Summer Discovery student and his father backpack through a high mountain meadow in High Creek Canyon.

do not make plants grow,” he wrote, “They do not attach the roots, glue on the petals, or color the fruit. The plant grows itself. Farmers and gardeners provide the condition for growth” (Robinson, 2009, p. 257). In traditional public education settings, teachers and administrators get caught up trying to make students learn, rather than providing the nurturing and rich conditions for them to learn and blossom.

Since 2013, I have taught the Elementary Science Methods course for elementary majors USU. The course is for distance education students, so I am in a room, by myself, talking to a video camera and look at a screen mounted on the wall to see my students in various locations around the state. This is a challenging way to model a constructivist and field-based approach to teaching science. At the end of every semester a few students are always fired up and excited to provide positive feedback. And without fail, a few students will also say, “The things Eric talked about are impossible. We could never do these things. They are not realistic. My school would not let me do that stuff.” My message to these university students is that they must make sure their instruction is grounded in curriculum standards, start small, work within the parameters that they have, and slowly expand the possibilities. I also emphasize that our students took the same tests as every other student in the state; that we worked within the same system—with the same boundaries and limitations—as every other teacher in the state. What concerns me most, is that many of these education majors have already decided what they will not be able to do in their future classrooms.

In his book, *Building Background Knowledge for Academic Achievement*, Robert Marzano (2004) writes, “If schools had unlimited resources...the answer would be

straightforward—provide field trips.... But in this time of cutbacks in school resources, this solution is unlikely to prevail (p. 14).” He then dedicates the remainder of his book to explaining second-best ways to teach students in classrooms by activating their existing background knowledge. I have often wondered what harm we are doing to our students by requiring them to spend seven hours a day inside cinderblock rooms. There is a whole-wide world is just beyond the schoolroom doors.

Expansion

Carlos Roundy, a generous man, dedicated to providing better opportunities for minorities in Cache Valley, was a local resident who found success in the business world developing commercial laser measurement devices. Neither Bryce nor I knew Carlos, but he had heard about us and Mount Logan Discovery. He asked if he could meet us about a year after we started Discovery to get our insights. He was heavily involved in bringing a new program, Latinos in Action (LIA), to Logan High School. LIA had been started in Provo, Utah a few years prior with the goal of empowering youth to become leaders in their communities (Latinos in Action, n.d.). In the meeting, Carlos told us he wanted to give \$90,000 to the school district, in the form of classroom grants for teachers, and he wanted the funds specifically to go towards helping Latino students. He also hoped much of the money would go towards helping students get outside and he wanted our input on how he might proceed to have the greatest impact. Should he offer ninety \$1,000 grants over several years, or nine \$10,000 grants, or a combination of both?

We discussed the pros and cons of various options and advised him that in all

likelihood, the smaller grant money would just get piddled away on meaningless things like classroom decorations or supplies. Though it would not likely impact as many students, if he were to give larger grants, we felt the money would make a bigger difference. In the midst of the conversation, Carlos asked us. “Well, what would you do with, say, \$45,000?” We had not expected this, so our answer was entirely spontaneous. We looked at each other. I do not recall which of us said what but we essentially explained that we would buy a second Suburban, hire a part time person, call it ESL Discovery, and have the new employee work with the ESL program to provide small-group field experiences for students who were focused specifically on building academic vocabulary (at the time, ESL was the educational acronym English as a Second Language, but that term has been supplanted by a more appropriate term: ELL, or English Language Learners). We calculated that \$45,000 would fund the concept for 2 years. Carlos, who had a tendency to smile frequently, seemed to smile even bigger when he asked, “Well what would you do with \$90,000 then?” We told him we would run ESL Discovery for 5 years, or as long as the funds lasted.

“Let’s do that, then,” Carlos said, “The hell with the mini grants.” Then he asked, “Can you write that up in a proposal—about two or three pages long?” We went straight to Principal Monson’s office. Dave Swenson, whom we started Discovery under, had accepted the job as Principal of Skyview High School. Dr. Monson, who had been the curriculum director, was asked to be the new principal at the middle school, where he had served as assistant principal in years past. Dr. Monson asked some important questions about the idea of ESL Discovery and the three of us, in communication with the teachers

who ran the ESL program, had a proposal for Carlos by the end of the week. A short while later a second nine-seater vehicle, a 2001 Ford Excursion, joined our Suburban in the parking lot. Both had logos Bryce and I designed in the windows that said “Mount Logan Discovery” in large Papyrus font, and in smaller lettering, “Extending learning beyond the walls!” The Excursion had “ESL” added in front of the logo, and on the rear window, to match the Suburban, “A generous gift from MAOF.” MAOF (Multicultural Adventure Outdoor Foundation) was the name of Carlos’ nonprofit organization.

ESL Discovery was run by Bonnie Judd from 2009 to 2013. A former middle school science teacher, Sarah Kerley-Weeks, ran ESL Discovery in 2013-2014, the final year of ESL Discovery before funding ran dry. Carlos had lost most of his money in the stock market crash and could no longer support the ideas that he loved financially, though he remains a committed force for good, working as volunteer in the community. ESL Discovery utilized the same concepts as Mount Logan Discovery but focused explicitly on students who had limited English mastery and who qualified as “ESL” status. Mrs. Judd, and later Mrs. Kerley-Weeks, worked with content area teachers and ESL teachers at the middle school to provide small-group field experiences to build understanding of academic vocabulary.



Photo 13. The ESL Discovery Excursion, the Pentium II canoes, and the white Discovery Suburban.

During the time the Suburban (8 years) and Excursion (7 years) were in use, they transported students on field experiences, twice daily, for approximately 175 school days each year and roughly 30 days each summer. These field experiences built academic background knowledge, exposed participants to an array of careers as they interacted with professionals, and engaged students in meaningful community service learning projects.

Every small-group field experience had academic significance and a strong writing component. Students gained confidence and created relationships with peers and adults through various activities such as learning to paddle a canoe, hiking, rafting, rock climbing, feeding elk at a local elk refuge, water quality monitoring in local rivers, and creating interpretive trail signs. Though acquiring a vehicle for a public-school program seems daunting, consider that the cost of the Suburban or Excursion would have purchased the equivalent of five now-obsolete laptop computers or iPads. Teachers and administrators commonly write grants for \$30,000 to \$40,000 for iPad and laptop mobile labs. Put in this perspective, finding funds to purchase a \$7,000 nine-seater SUV that will have double, or triple, the life-span of electronic gadgets, does not seem so far out of reach. It is a matter of priorities.

A Bluebird with His Heart Removed

The third year we ran Discovery everything hummed along. We had worked out kinks, we had a strong communication with fifth-grade teachers in the elementary schools, we established relationships with the City of Logan, Hardware Ranch Elk

Refuge, and the National Predator Research Facility for service learning projects, we had a robust library of about twenty classroom-sized sets of books, we had strong parent support, and a good track record bringing in additional grant money to offset the costs of operating Discovery. We had even acquired funding to purchase a third vehicle, for other teachers at the middle school to be able to use for field programs, but were firmly told no by the district this time because, “You are amassing a small fleet of vehicles.” We had 3 years of strong testing data, consistent with the first-year results. We spoke frequently about finding funds to double the program—which we could fill from parent requests alone, and would still have to turn some students away. My own twin boys were enrolled in Discovery that year, making it an especially satisfying time for me.

That spring, Bryce attended a retirement seminar hosted by the district. The next day he told me that from a financial standpoint, at this point in his career, he was better off to retire—in fact he was foolish if he did not. “I’ve worked my whole career to get to this point, where we are, and now I have to retire. It does not make any sense,” he lamented. About the same time, a new charter school on the other side of the Wellsville Mountains, The Promontory School of Expeditionary Learning, recruited Bryce to be their first Director. Bryce could retire, become the Director at Promontory, hand-pick his new staff, and essentially expand our Discovery model to the whole school—which was founded on similar principles. As much as we hated to see our partnership come to an end we both knew it was the right move. I joked, “Well at least you can listen to KBNU talk radio in the mornings again, since I wouldn’t be in the same room.” Bryce quipped in return, “And you can hold your teacher association meetings after school here, since I

wouldn't be in the same room.”

The fourth year, was a watered-down remnant of Discovery. Declining enrollment at the middle school and massive budget cuts to public education necessitated that ten teaching positions were eliminated from the middle school (Sargsyan, 2011). After we started Discovery, the rest of the sixth-grade began blocking math and science together and social studies and language arts together, in two-period blocks of time. This put our three-period block at odds with the rest of the sixth-grade schedule. In the fall, we experimented with offering field experiences to all sixth-graders—I would pull students out of their classes in small groups. I was able to get every sixth-grader out twice before December, when Bryce officially retired. In January I was asked to move back into the main building and teach a math-science block in Mr. Passey's place. Dr. Monson, a believer in our program, was sympathetic, but his hands were tied. There just was not any way to keep Discovery going like it had been in the past.

That winter and spring were one of the hardest stretches of my teaching career. I had no partner, a fully functioning Suburban, a trailer of eight canoes, all the equipment and community partnerships in place for field programs, and 80 students (and then some) who had been selected for Discovery—but I could not give them what they needed. I had the keys, but I could not go anywhere. Driving into school one morning, listening to KLZX classic rock (because I could not handle the level of intellect required to listen to NPR at the time), the Eagles new song *How Long*, blared through my speakers. I cranked up Glenn Frey's vocals and sang along:

*Like a bluebird with his heart removed, lonely as a train.
I've run just as far as I can run....*

*I've been doing time in the lonesome prison, where the sun do not shine.
 Just outside the Freedom River runs....
 What you get is not quite what you choose.
 How long? How long? Muddy river runs so deep.
 Good night baby, rock yourself to sleep.
 (Eagles, n.d.)*

Since it was privately funded, ELS Discovery was still functioning. It stung to watch Bonnie load up the Excursion with students and head out into the real world, but at the same time it kept me going, knowing kids were still getting outside to learn. I was truly happy for her. She would frequently talk with me before or after school to get my advice on places she should go, or to get answers to about safety concerns and weather conditions. Bonnie was a gentle and caring woman who was tuned-in to others. That week, she was visiting the Museum of Fine Art on the USU campus with the ESL students. Several days prior, Bonnie told me about an exhibit in the museum that had a steel ball on a tray of smooth sand. "The tray rotates, and as it does, this steel ball rolls slowly around, making beautiful patterns in the sand," she described. Bonnie must have sensed my despair. When I arrived at school that morning feeling down, after singing along to the Eagles, there was a large envelope on my desk.

Inside the envelope, I found an eight by ten print of the metal ball, with the pattern it had created in the smooth sand. I opened the accompanying card. She wrote:

Dear Eric,

I know you must feel like you are pushing a boulder up a hill, but you are making beautiful patterns in the lives of students. Keep pushing. Do not give up.
 Best regards, Bonnie

I tried to dry my eyes before the bell rang and students filed in, but the tears kept flowing down my cheeks. Bonnie was right. I had to keep pushing.

I walked into Dr. Monson's office on my prep time and asked, "What if we hired a long-term sub to team teach with me and allow me to take field groups out for 1 week each month? That would provide consistency in the classroom while I'm gone, and I can make an impact on these students."

"We can't. We do not have any spare money in the budget," he replied.

"But how much would it take?" I asked, "How much money do I need to find?"

Dr. Monson smiled. We crunched some numbers and he called the district office. "They wouldn't let us proceed unless we have all the money in the account first," he said. "You'd need about \$8,000 before they'd let us advertise the position."

With Dr. Monson's permission, I sent a letter to parents asking for donations. I created a brochure and spent a day at the Outdoor Retailer Show in Salt Lake City (before it was moved out of state, in protest of Utah politicians' repeated attempts to privatize public lands). I met with countless retailers, asking for funding and leaving my brochures behind. I walked away with some promising leads, many compliments, but eventually no contributions came from the effort. Some would not give to public schools—only to non-profits, some offered equipment donations, and others said they'd get back to me and never did.

When I was seventeen, a good friend, Mike Packard, and I had finished a long loop hike in Little Cottonwood Canyon and were hitchhiking back to my family's red Toyota Tercel—the same car that had gone through the fence in the middle of the night the year before. Six or seven cars passed by without stopping. I do not remember what I muttered in frustration, but I do remember Mike Packard's calm response.

“Eric, no one owes us ride.” He was right and those words of wisdom rang in my head as I reached one dead end after at the Outdoor Retailer Show.

Several weeks later, Dr. Monson called me into his office. “Parents and community members have donated almost \$10,000 to keep Discovery on life support,” he said. Then he added, “Most of the donations have been \$100 or less—there’s a lot of people who care about your program.” Dr. Monson submitted the job description for the long-term sub to Human Resources. Discovery limped along for the remainder of the year.

By spring of that year, I had contacted almost eighty corporations in the outdoor industry and six different charitable foundations, seeking funding to revive Discovery. Every single contact was a dead-end, and I was beginning to believe Discovery was done. Dr. Monson called me into his office one afternoon. Without my knowledge, he had been working hard behind the scenes to find funds as well. A grin emerged as he informed me we had been awarded the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) grant (U. S. Department of Education, 2017) which would provide several years of funding for Discovery. The only catch was that we needed to add math to Discovery without increasing the amount of time we had in each block. With the exception of the year I taught “Richard Jones Math” to my fifth-graders, I’ve never enjoyed teaching math. That year, an anonymous student left a note for me in the Community Compliments and Concerns can that said, “Mr. Newell, you are an awesome teacher, but not so much at math.” The note still hangs on my office wall. As much as I did not want to take on math, it was the only option to proceed.

Tenacity

That spring, I did not recruit any teachers to partner with me in Discovery. I believed I could work with anyone on our staff. I thought it was more important to work with someone who stepped forward and expressed interest on their own. It took a little while, but one of the sixth-grade math-science cluster teachers, Jann Humpherys, started asking questions about Discovery. She taught the math for our Discovery students the previous year.

“I watched you and Bryce try to build Discovery for years,” Jann said. “You both were determined to push through a lot of resistance from other teachers to make it happen. I always questioned that,” she said. “A lot of teachers thought you were just playing around and pampering students in Discovery, with not down-to-business stuff.” Jann asked if she could come out and observe what we were doing. “When I went out to the portable classroom, I did not really know what to expect. I thought I might see little circles of games and fun stuff all over the place. But I saw structure and very organized, under control, rigorous teaching. It was the opposite of what other teachers thought.” Jann was ready for a change. She told me later, “I was a pretty traditional-type teacher and I wanted to move out of my comfort zone. I thought I could use a push in how I approach teaching.”

About a week later she spoke with Dr. Monson and made it official. Her love of teaching math was a great asset, and she was a veteran teacher who I knew would bring new ideas to the program. She came out to the portable classroom that day after school to look it over and think about how she would arrange her things in the physical space. The

classroom had been a hermitage for the past 3 years. She looked around the room quietly for a few minutes. She looked at me. Her characteristic smile erupted and she asked, “Umm, do you mind if I decorate?”

We started off the 2012-2013 school year with excitement. The addition of math required that we revisit priorities and figure out a plan for students who were participating in field programs. Instead of starting each session with the word of the day, we started with math, so all students would be in class for the explanations. The field groups completed a shortened version of the same assignment the students in class were working on. In the classroom, after math was completed, then we’d shift to the word of the day and the reading. Social studies had to take a backseat, though we visited the content when we could. The hardest change was that with the addition of math, the time we could spend reading and writing, was slashed significantly. We went from reading 18 books during the school year to completing just nine books. It was not difficult to predict that our reading gains would be diminished severely and they were—our average class gains were down to about a single grade level. Which was still an improvement over progress most of our students had made in past years—but we had moved further away from the initial goals and purpose of Discovery.

Jann proved to be an outstanding teaching partner, whose influence improved my own teaching habits over the next 2 years. I learned a great deal from her, as I had from Bryce. She brought new energy and frequent laughter to the classroom. She also brought a strong passion for teaching. “I love non-traditional students,” she said, “I think most teachers do. I think we all really love to bond with kids who need a lift.”

For years, I had thought about returning to graduate school. I felt that I had pushed the boundaries as far as I could in public education. I knew that if Discovery was ever terminated, that I would not return to a traditional classroom. I had seen too many successes through our Discovery program. Every time there was a shift in administration at the school or district level, I had to justify why field experiences were vital to Discovery. A few teachers at the middle school continued to make attempts to discredit Discovery. Considering all of this, I arrived at the conclusion that if I was going to continue to advance the value of a constructivist approach to education, especially one that involves outdoor experiential learning, I needed to go back to school, understand educational research, and make contributions to the field.

I set up a meeting with the Department Head in the College of Education at USU, Dr. Martha Dever, who had been one of my professors back in the 1990's when I was working on my bachelor's degree in elementary education, and Dr. Martha Whitaker, a professor who supervised the graduate students in the TEAL department (Teacher Education and Leadership). I had a list of questions and they answered each one to my satisfaction. I remained undecided. Dr. Dever, in a final persuasive attempt, said, "Eric, your whole career is living proof that the ideas we teach in the elementary education program work in practice, not just in theory. You would be a strong asset to our graduate program." At home that evening, I spoke with my wife, and the following day I began preparing my application to the Ph.D. program and gained admission shortly afterwards.

Jann and I ran Discovery together for two more years. I chipped away at my graduate coursework in the evenings. For the 2014-2015 school year, I had an unexpected

opportunity to take a 1-year temporary position teaching education courses for the Emma Eccles Jones College of Education and Human Services at USU. I would teach four courses each semester, Assessment, Content Area Literacy (for secondary teachers), Science Methods, and Classroom Management. Bryce had realized his passion was for working with students, not sitting behind a desk doing administrative tasks and he wanted to come back to Discovery. After many conversations, I decided to take a leave of absence from Discovery, and teach on the USU campus for a year. It would be valuable experience and catapult my Ph.D. coursework forward. Bryce would take my place for the year. I felt Discovery was well enough established, well enough supported by parents and administration, that it would continue to operate in my absence.

While I taught preservice teachers on campus, Bryce and Jann worked together to run Discovery for the 2014-2015 school year. By the end of that school year, we had amassed 3 years of strong data and 4 years of decent data in the form of end of level testing and reading assessments. The fourth year, when Discovery was whittled down substantially, the sixth-grade language arts scores took a big dip from the previous years (I do not have access to the exact numbers now). During the 7 years Discovery existed to this point, we received nearly \$250,000 in grants and donations to fund our summer programs, ESL Discovery, and Discovery itself (Mount Logan Discovery, n.d.). The program also kept many families from leaving the district, and a hand full of our students had used school choice options to attend Discovery from outside of the district. These were significant factors for a district with slowly declining enrollment. But more importantly, we were receiving feedback from parents that Discovery was impacting their

children's lives in positive ways that do not show up as quantifiable statistics. Our field programs were building confidence, relationships, social skills, connections to the landscape, and enduring understanding. The outlook for Discovery was bright.

All Good Things Must End

*When I heard the learn'd astronomer,
When the proofs, the figures, were ranged in columns before me,
When I was shown the charts and diagrams, to add, divide, and measure them,
When I sitting heard the astronomer
Where he lectured with much applause in the lecture-room,
How soon unaccountable I became tired and sick,
Till rising and gliding out I wander'd off by myself,
In the mystical moist night-air, and from time to time,
Look'd up in perfect silence at the stars.*

-Walt Whitman (1865), *Leaves of Grass*

Every summer we thought might be the last for Summer Discovery/River Rats. The program depended on finding grant money each year. Most summers we secured enough funding to offer two, 2-week sessions, and on a good year we could offer three. On rare occasions, we acquired funding for four summer sessions. By the time the summer of 2015 rolled around, we had funding in place to offer three sessions. I was still technically on my leave of absence from the district but was still able to participate. This was my twelfth summer taking kids to the Tetons with Bryce and Dave—and they had done several more.

My year teaching at the university was complete, but I was intrigued by the opportunity to work at the elementary charter school on campus, Edith Bowen Laboratory School (EBLS), where Dr. Dan Johnson was the principal. There was a

position open as the STEAM (Science, Technology, Engineering, Art, and Math) specialist at the school. The thought of working for Dan again was tempting, especially knowing that Dr. Monson was leaving the middle school to work as an administrator in the neighboring school district. On July 1, the school district was set to have a new superintendent and a new curriculum director, and the middle school would have a new principal and a new assistant principal. These leadership changes made Bryce, Jann, and me nervous about the future of Discovery, which had weathered administrative changes in each of these leadership positions in the past, but not two at a time, or even all at once. The previous few weeks I thought a great deal about my future. It did not make any sense to not return to Discovery, but I could not escape a nagging feeling that it was time to make a transition. I applied for the position at EBLS, but had not heard anything back when our first summer school session began.

As we did every year before, we invited the new middle school principal to join us. Dan, Dave, and Dr. Monson had all come along in past summers and had observed, first hand, the impacts that Summer Discovery/River Rats was having on students. Together we paddled canoes, rafted class II rapids on the Snake River, hiked to Taggart Lake, camped, watched wildlife—all of which provided a solid foundation for fifth-graders transitioning into sixth-grade at the middle school. Twice, we secured professional development grants to offer Summer Discovery sessions for our teachers too, as optional training. Faculty also bonded through these experiences, just as our students did. The new middle school principal had worked in the district as a teacher and later became an administrator. He knew of our summer programs, but lacked details.

After twelve summers working together, Dave, Bryce, John and I ran an efficient operation. There was not any challenge—homesickness, car sickness, anxiety, allergic reactions, first-time menstrual cycles, navigating Park Service permits and permissions, torn rafts, broken down vehicles—anything at all, that we had not worked through and that we were not confident handling. We invited the new principal to join us for the first session and expected we would have opportunities to talk about the worth of Summer Discovery and Discovery. He met us in the campground the first evening, missing the Taggart Lake Hike and the class II whitewater rafting in Alpine Canyon. He also missed seeing the writing instruction, the interactions with students, the curriculum ties to geology, science, and math standards, but we were not worried, we still had two full days to showcase Bringing Literature to Life.

The principal was friendly, but he did not say much that evening—none of us knew if he was just reserved or unimpressed. The next morning in the pancake line he said, “I’m leaving at noon.” Then he sat down to eat his breakfast. I looked and Bryce, Dave, and John and said, “It’s over.” They nodded in agreement. It is possible we misinterpreted the principal’s intent—but all of us had the same impression. The next morning, Bryce, always the early riser, and two students who had also crawled out of their tents at the crack of dawn, watched a wolf trot silently past the campsite. Before I emerged from my sleeping bag those two boys wrote excitedly about the wolf sighting in their journals, filling page after page.

All the effort, from the grant writing, food shopping, equipment preparation, to



Photo 14. Summer Discovery students raft on the Snake River.

time away from our families—was always worth it, knowing that we were providing experiences for students that would serve as a point of reference for the rest of their lives. For two sixth-grade boys that morning, it was an up-close view of a rare and beautiful wolf. For other students, it was watching a bald eagle and an osprey fight over a trout, seeing a bear on the bank of the Snake River, watching a moose and her calf while we ate dinner in camp, or smashing through the giant wave in Big Kahuna Rapid. We'll never know the full extent to which these memories impacted our students, but we do know the lift we felt, watching it all unfold.

I accepted the position at EBLIS, and though it was hard to leave Discovery, it felt like the right move and it was satisfying to walk away on good terms with the District and with Discovery in good working order. The persistent nagging memory of the

principal's words that summer, "I'm leaving at noon," haunted me. We hoped we did not read him accurately. And we did not know if the new assistant principal, the new curriculum director, or the new superintendent would advocate for Discovery or not.

That fall I began hearing rumblings of concerns. The new principal instructed Bryce and Jann to limit their field experiences and to use the commercial reading basal instead of novels. "You have autonomy," they were told, "Here is the basal--teach it how you want." (B. Passey, interview, October 23, 2017). They were told to implement the spelling program the rest of the sixth grade was using. Bryce and I had resisted these pressures for years on grounds that spelling was better taught in authentic contexts, such as writers workshop, and that these kinds of reading programs are precisely what turned the majority of our students off to reading in the first place. Our results the first 3 years we offered Discovery made a compelling case for our stance. Parents I spoke to were frustrated with the changes and I could tell Bryce's spirit was flagging. "The flaw with educational research," Bryce lamented, "is that it assumes that a classroom with four walls is the ideal environment for students to learn."

That winter, I designed a program evaluation for Mount Logan Discovery, as part of one of my graduate courses. I emailed the new middle school principal and the new superintendent. I wrote that I knew they were considering the future of Discovery and that I would like to meet with them and share my insights, as the program founder, to help them better understand Discovery. I made it clear that now, as an outsider, I had nothing personally to gain or lose regarding the future of Discovery, and that I was not attempting to make the decision for them. I also offered to share my newly completed

program evaluation template for Discovery (Appendix G), and that it would provide guidelines for them as they moved towards making a decision.

Neither of them responded to my email. I sent a second message, several weeks later with no response again.

A month later, the new principal called Bryce and Jann into his office. He shared data on Discovery students for that school year, comparing the scores to the performance levels of the rest of the sixth-grade. “But they are different kids,” Bryce protested, “and look at the reading growth of individual students” (B. Passey, interview, March 7, 2018). Jann felt the math scores were respectable, too.

“Discovery is not working,” the principal said, “We’re going to close it down.”

Bryce and Jann were done fighting. They walked out of the principal’s office speechless. Bryce called me that evening.

I knew they were going to shut Discovery down. But to tell us we could not run field programs regularly, to tell us we had to put down the novels and use the reading and spelling programs this year—and then have the audacity to show us student data from the year and tell us Discovery was not working. That is infuriating. We were not doing Discovery. We were doing what he asked us to do—that’s what was not working. (B. Passey, interview, October 23, 2017)

Bryce and I spoke with Jann. “I’m trying to look at this with an open mind,” she said, “I’m trying to understand the decision.” The three of us concluded it would be useless to fight the administration even though we disagreed with the rationale. The last week of school I posted the following announcement on the Discovery Facebook page.

It is over folks. We are sorry to report the district will come and pick up the Discovery vehicles on Friday. One will go to bid sale, the other will go quietly into the district fleet. It is hard to believe we started Mount Logan Discovery eight years ago. Over that time, we served about 545 students during the school year and well over 1,000 students with our Summer Discovery/River Rats courses, which are

also over. We are grateful to all the administrators, colleagues, maintenance crews, parents, donors, and students who were part of building this dream—there were many.

Though obviously disappointed, we are not challenging the decision.

We are not attempting to create a firestorm. Rather than getting upset, please, take some time to put your fabulous Discovery writing skills to good use and share your thoughts and memories of Discovery here. Tell us your story. Just keep it classy. We'd love to hear from you!

Several days later an article was published in the *Herald Journal*. It began: "Citing student performance data and scarce resources, Mount Logan Middle School officials have decided to discontinue the popular Mount Logan Discovery program starting next year" (Opsahl, 2016). The article provided a good recap of Discovery and of the new principal's rationale, supported by the superintendent. The new principal acknowledged that it was a hard decision. He was quoted as saying that he "found the educational performance in the sixth-grade regular education programs was greater than that in Discovery. He said he did not know the reason why that is, only emphasizing that's what the data showed" (Opsahl, 2016).

For more than a decade, Bryce and I had devoted ourselves to creating and sustaining Mount Logan Discovery. Jann had dedicated 6 years of her career to Discovery. Countless others had contributed time, effort, ideas, and resources as well. We hatched the idea under one principal, started Discovery under a second, and kept it going under a third principal. As professional as we tried to be about the decision, it felt like a gut punch.

Discovery was not the only program that was cut. The middle school mascot is "The Mountaineers." Special education and resource teachers Trudy Peterson and Wyatt Lusk developed and ran the Mountaineer Academy and Home Base to serve struggling

students. Home Base functioned for just 2 years, but Trudy continued the Mountaineer Academy for 7 years. Prior to starting the Mountaineer Academy, students who were falling behind in their classes had to eat lunch in the “Redo Café,” where they would complete missing assignments. “The idea,” Trudy said, “was to make it an uncomfortable and unpleasant experience so they would not want to get behind on their work. But it was a punishment. The whole idea of the Mountaineer Academy was to give these students positive support that would help them succeed before they fell behind” (Trudy Peterson, personal communication, March 6, 2018).

The Mountaineer Academy served seventh and eighth grade students. Less than a dozen students were enrolled in each of Trudy’s six class periods so they could receive individualized attention. Trudy taught her students successful study and life skills and provided them with needed academic support. She also implemented the WhyTry Resilience Education Program (WhyTry, n.d.). Every Wednesday she, or her aides, used the ESL Discovery Suburban to transport small groups of students for service learning projects and partnerships. She had a positive influence on hundreds of students over the years.

Ken Lester, representing about a dozen businessmen, approached Trudy about the possibility of volunteering at the middle school to help disadvantaged students. This crew became the “Mountain Men.” Four or five of them would spend one to two hours each week in the Mountaineer Academy, paired with small groups or individual students to help them with assignments. “It was amazing,” Trudy said, “Some were good at math, one was even a retired engineer from ATK Orbital—a company best known for building space

shuttle rocket boosters” (T. Peterson, personal communication, March 6, 2018). The Mountain Men helped students build Rube Goldberg machines and design projects—a precursor to the current Maker Space trend.

Trudy became emotional when she reflected back on the Mountain Men.

It was incredible to see these successful businessmen leave their jobs and lives for a couple of hours every day. They came to my classroom in their work clothes, and sat down at a table with—well, sometimes some pretty rough looking kids—and helped them with their homework. They became true role models for my students. It always touched my heart. (T. Peterson, personal communication, March, 6, 2018)

With funds from the GEAR UP grant, Dr. Monson and Trudy were instrumental getting training and implementing the AVID program at the middle school as well. AVID ‘s mission is use positive peer groups and meaningful relationships to teach students behaviors and allow them to close the achievement gap. AVID seeks to provide hope and prepare all students for college readiness (AVID, 2018).



Photo 15. A student cannot contain her glee while participating in routine service learning at Hardware Ranch.

Disregarding the collective experience of the staff and three previous administration teams, Discovery, along with the Mountaineer Academy, the Mountain Men, and the AVID program, were all cut from the middle school at the end of the 2015-2016 school year. Each of these programs were judiciously developed in response to student needs that teachers and administrators observed. They were implemented to proactively support middle school students during an awkward and often difficult time of life. The new principal had moved from one of the elementary schools in the district. In place of the programs that were cut, he implemented the Refocus Room and brought back the concept of the ReDo Café, under a different guise. All the elementary schools in the district utilized Refocus Rooms. Although the approach is founded on positive interactions, Refocus Rooms are a reactive approach to student behavior. The decimation of quality programs that humanized and personalized education is precisely what happens to schools when well-meaning administrators become hell-bent on improving high-stakes testing scores. This is what testing culture does to schools across America.

I do not wish to vilify the administrators who made and approved these cuts. They are good, decent people, committed to helping students succeed. Each of them have dedicated themselves to improving the lives of youth. Their service is commendable. I do not question their motives nor do I doubt their intent. It boils down a difference of paradigms of what is the best way to equip children for the future and how you define success. It is a question of whether or not you believe that quantitative standardized test results are the definitive measure of a child and of our schools.



Photo 16. A student writes along the Logan River during a Discovery field experience.

Epilogue

Jann continued to teach math at the middle school and completed her administrative license. Bryce became a founding board member of The Center for Creativity, Innovation, and Discovery (CCID), a new charter school in the valley. He then became CCID's first sixth-grade teacher, for the 2017-2018 school year. I threw my energy into my new role as the Director of Experiential Learning and Technology at EBLIS and continued my graduate studies on constructivism and outdoor experiential learning. In the months that followed the closure of Discovery, Bryce, Jann, and I tried to process what had happened and what we might have done differently, if anything. In these musings, when we looked forward at the possibilities instead of back at the disappointment, we began to view our experiences with Mount Logan Discovery as stepping stones.

CHAPTER V

ANALYSIS

I once knew an educated lady, banded by Phi Beta Kappa, who told me that she had never heard or seen the geese that twice a year proclaim the revolving seasons to her well-insulated roof. Is education possibly a process of trading awareness for things of lesser worth? The goose who trades his is soon a pile of feathers.

Aldo Leopold (1966, p. 20), *A Sand County Almanac*

Fleeting Bloom

Spanning more than a decade of summers, Bryce, Dave Anderson, and I led more than 600 incoming sixth-graders to the summit of Naomi Peak. At 9,984 feet tall, it is the highest point in the Bear River Range. The pattern was simple; walk until our students grew tired, then sit in a shady spot and read and write until they became fidgety, and repeat. Every time we stopped to rest, we also read and discussed a chapter of a book. Students created word lists, phrases, and metaphors in their journals that represented the previous section of trail. Reaching the peak from the High Creek trailhead required backpacking seven miles and 4,700 feet of elevation gain—the hardest physical task most of our students had ever completed. After celebrating briefly on the summit, students used their word lists in their journals, to write detailed descriptions of their arduous journey.

Part of the writing preparation was to talk about tenacity by drawing students' attention to the striking pink alpine phlox that grow in the limestone crevices on Naomi Peak. These delicate flowers occupy a niche, thriving in harsh conditions where few other living things exist. They spend 8 months of the year buried in snow only to be greeted by

bitter cold winds and freezing temperatures when they emerge—all of this so they can grow and finally flower for just a few weeks each year. The fleeting bloom of alpine phlox is a similitude for the life-cycle of Discovery.

The months and years following the closure of the program provided opportunities to reflect back and ponder questions that guided this research study. What were the criticisms? What challenges were overcome to keep Discovery alive for 8 years? What factors contributed to the closure of the program? What were the experiences of students and how were they impacted? What were the perceptions of parents, teachers, and administrators? What motivated donors to make significant contributions? How did Discovery align with constructivist learning theory? And what can we learn from the program's rise and fall? This section expounds on these and other questions.



Photo 17. Sixth-graders learned they could do hard things on the trail to High Creek Lake.

Vulnerability

Sir Ken Robinson's (2009) thoughts on why it is difficult to transform public schools is a pertinent starting point.

There is a basic flaw in the way some policymakers have interpreted the idea of going 'back to the basics' to upgrade educational standards.... They seem to believe that if they feed our children a nationally prescribed menu of reading, writing, and arithmetic, we'll be more competitive with the world and more prepared for the future. What is catastrophically wrong with this mode of thinking is that it severely underestimates human capacity. We place tremendous significance on standardized tests, we cut funding for what we consider "nonessential" programs, and then we wonder why our children seem unimaginative and uninspired. (pp. 15-16)

Programs like Discovery will always be vulnerable in public school settings. Though we had strong support from parents, teachers, and administrators, we also had critics. What surprised us most was that many of them were our colleagues at the middle school. Their primary issues were (1) the perceived inequities of financial resources (recall the teachers who believed the district purchased the Suburban), (2) the perception that we were coddling students, (3) the perception that because we did not utilize traditional seat-time strategies that we were not teaching mandated curriculum standards, and (4) most disturbingly, was the perception that we were rewarding the bad kids (recall this hallway accusation from another middle school teacher that only honors students should get to go on field trips). Some of these notions were fueled by fears that our student's success made them look bad. We worked hard to remedy these concerns at various levels. Ultimately, we failed to resolve all of them.

Consistent communication cleared up many of these misconceptions. Aside from lunch-time conversations, the www.MountLoganDiscovery.org website and Facebook page

were designed to address concerns by making our practices in the classroom and in the field transparent. Photographs and updates communicated grants awarded, books we read, literacy gains, writing samples, and integrated projects. As I reported previously, during its life span Discovery was awarded roughly \$250,000 in grants, to compensate for additional operating costs and to support summer programs. That figure does not count the GEAR UP grant that funded Discovery from 2012 to 2016. We were attuned to state curriculum standards and embedded them in every field experience. These efforts generally satisfied critics but the perception that we “rewarded the bad kids” continued to dog the program. No amount of communication, web page design, or social media posts seemed to change these engrained attitudes.



Photo 18. Students frequently filled page after page in their journals after writing mini-lessons in the field.

The second year we acquired grant funding from Youth Discovery, Inc., to pay for a substitute for any teacher in the school who wished to provide small-group field experiences for their students. We explained to the entire faculty that the ESL Discovery Excursion was available for each of them to use every Friday throughout the school year. Teachers only needed to reserve the vehicle and call in for a substitute teacher. We provided guidelines and ideas for them to utilize the vehicle. One eighth grade science teacher used the vehicle twice that year. That was it. Although we were disappointed, after that year we felt less pushback from some of the teachers who had been critical. We attribute this to the fact that small group field experiences were suddenly something they could do, and that they elected not to do.

Challenges

Mount Logan Discovery faced challenges from the beginning. Transportation issues arose early but were solved rather quickly with the donation of the Suburban. Ironing out logistics was a process of trial and error. In the beginning, Bryce and I alternated spending every other day out with the field group and every other day in the classroom. Adjusting that rotation from a daily to a weekly rotation allowed for more consistency in the classroom. Moving past the mindset that every student must do the same thing every day proved critical to the success of field programs. We faced and overcame repeated risk management hurdles, district-level red tape, and funding shortages, all described in previous chapters. After the closure of Discovery, one parent wrote, “I have admired the way Eric and Bryce navigated what must have been incredible bureaucracy to implement

such an innovative approach to ignite a love of reading, writing and science in children who often struggle in a traditional ‘sit in your seat’ learning environment. My three children will forever be blessed by their experiences” (Mount Logan Discovery, 2016).

Another formidable challenge was math instruction. Discovery was created as a Tier II intervention to improve literacy skills by integrating science, social studies, and language arts. Addressing mathematics instruction was not part of the original mission. Instead, our students attended a separate 45-minute math class during the day. During the third year, math classes for Discovery students were taught by Jann Humpherys and Julie Neiman. The rest of the sixth-graders in the school were enrolled in a 90-minute math/science block and most days 60 to 70 minutes of that time was dedicated to math instruction. Jann and Julie grew concerned that the Discovery students were falling behind their peers in math since they only received a maximum of 45 minutes of math instruction each day. This observation coincided with massive cuts to the state education budget. The resulting reductions in staff at the middle school made teaching math separately impossible.

Prior to the start of the fourth year of Discovery we faced the choice to either disband the program or incorporate math into the three-period block. We opted for the latter. But the addition of math came at the expense of how much time we were able to dedicate to language arts, science, and social studies. Writing instruction suffered similarly. Re-aligning the program goals of Mount Logan Discovery to include math improvements and reducing expectation for literacy gains might have preserved the program, but neither Bryce, Jann, nor I believe this would have mattered in the end.

Discovery had weathered a number of administrative changes at the school and

district level—but always just one at a time. The final year of Discovery, there were no administrative advocates for Discovery. A new superintendent, a new district curriculum director, a new principal, and a new assistant principal were all transitioning into their new positions. While deciding the future fate of Discovery, the administration did not ask for our reading data from previous years, did not seek parent or student input, nor did they invest enough time to understand and realign program goals. The principal looked at testing data from the last year—when he was managing the methods—and declared Discovery a failure based on testing statistics. My requests to share insights about Discovery were ignored. In fairness, and as I’ve said before, the decision to close Discovery was made by well-meaning people who were striving to offer the best possible education for students—but we do not believe the program was given a fair evaluation.



Photo 19. Writing was embedded in every Discovery field experience.

While the new superintendent supported the decision to close Discovery he did acknowledge the positive impacts Discovery had on students transitioning into middle school. He stated, “There can be tremendous benefits from a hands-on approach” (Opsahl, 2016). But, he added, “The challenge any teacher faces in a hands-on type setting is the balance between concept and activity, and if any one of those takes over the lion’s share of the time, you can run into problems. If time spent on the activity is too little, you lose student interest. If not enough time is spent on the concept, then learning does not sink in” (Opsahl, 2016). The new principal’s explanation to close Discovery read as follows, “It is our desire to benefit all students at the middle school. We feel that our students will reach higher levels of academic proficiency by reallocating these resources to reach all sixth-grade students” (Opsahl, 2016). Our philosophies of education differed, as did our budget priorities, and our sense of what really matters over the long run. Though it would be easy to build a justifiable case for Discovery based on reading gains from the previous 7 years, the benefits of the program reached well beyond academic proficiency. Reflecting back, Jann said, “I’m on board with looking at data. That is what you have to do. But I also know there are kids and circumstances where you have to go beyond data and look at the human aspect. Kids need more than seat time and commercial programs” (J. Humpherys, interview, February 27, 2018).

Perspectives of Students, Parents, Teachers, Administrators, and Donors

Students

Looking back, it is hard to believe that we created Mount Logan Discovery in the

first place. It is even harder to believe it is gone. Through 12 years of Bringing Literature to Life summer programs and 8 years with Discovery, we witnessed remarkable growth in our students. A student who tried to quit on the trail one day, was the first on the summit the next; a boy who was terrified of water when we taught him how to canoe, sat in the front of the raft for the whitewater run a week later; a girl who showed up for the backpacking trip with no friends and only shorts, a T-shirt, and a bottle of water, headed home two days later with three new trusted friends, a dirty T-shirt, and a complete change in attitude about school. We convinced a kleptomaniac to return a Leatherman tool he stole from Bryce without accusing him of stealing; a Latina girl, afraid of heights, buckled her harness, tied into the rope (with our supervision), and climbed higher on the wall than any other student in the group; a bully set his pack on the trail and hiked down to carry a weary student's backpack up the final steep section to High Creek Lake. One summer session, we found a new hero—a sixth-grader who



Photo 20. Students create word lists next to Maya, the trail dog, on the High Creek trail.

backpacked a dozen miles and almost 5,000 vertical feet, refused to allow anyone to lighten his pack. Nor did he complain about his prosthetic leg.

These compressed snapshots represent just a few of thousands of stories of Discovery students' experiences. Zooming in on the details of several additional stories provides a deeper understanding of the impacts Discovery had on individual lives.

Brody. A week before our second year of Discovery began, a concerned mother walked into our portable classroom one afternoon. She had just learned that her son, Brody, was enrolled in Discovery and wanted to know more about our approach. This was not an uncommon occurrence. Brody was on the autistic spectrum and diagnosed with ADD. The previous year, she explained, he had spent most of his time at school in the Refocus Room. "It was a wasted year," she told us, "I'm looking at all the options for my son—Discovery, charter schools, or even home school if I have to."

Bryce glanced at me, then at the mother, "Look, Eric and I both probably would be diagnosed with ADD, too. That's why we teach the way we do. We know that kids need to move around, that learning needs to be as authentic as possible, and that kids need caring, supportive environments in order to thrive."

"We even wonder, sometimes, if the kids diagnosed with ADD are actually the normal kids," I added, "and the students who can sit in hard chairs for seven hours a day are the ones we should be more concerned about. The human body was not designed to do that." We all laughed.

"We'll take good care of Brody," Bryce assured. We explained the frequency and role of field programs, shared the kinds of projects we engaged students in, and read our

Discovery creed to her. She nodded her head. She would give Discovery a chance.

Our ability to serve Brody would have been severely limited in a traditional seven-period per day middle school setting. With our Discovery model, we had full confidence we could help him. Like many other students we served, it took several months to build a trusting relationship with Brody, but through consistent field experiences and by building upon progressively larger in-class successes, he had a productive year in terms of his overall attitude, his social skills, and his academic progress. We never sent him to the office that year. Other than a couple of safe-school violations (a student with a Chinese star, for example), which we were legally required to refer to the principal, we rarely—if ever—sent students to the office, during 8 years. I am not implying that we were better teachers. What I am saying is that Bryce, Jann, and I repeatedly observed that small group outdoor field experiences had a positive impact on our students' overall behavior. We credit the consistent small-group field experiences and the stability of the three-period block schedule as the catalysts that enabled Brody, and many other students who struggled to stay focused in the classroom and succeed.

One year as I was turning the class over to a student teacher, a handful of students were exhibiting behavior issues in class—typical hormone-induced springtime antics in a middle school. I intentionally lumped these seven students into a field group and took them out to the Little Bear River to canoe. My student teacher gasped, “Are you crazy?” he asked, “They are going to be horrible out there!”

I shook my head gently, “They’ll have a paddle in their hands—they’ll be fine.” And they were. In the two hours that we were away from school, I had the chance to talk

to them directly about expectations, problem solving, and communication. They also experienced integrated science and language arts and came back to school in good spirits. All of this occurred in the context of positive conversations, without punitive tactics of punishments. They behaved noticeably better in the following weeks for my student teacher.

Lacey. Every day we read at least one chapter of a book in class and each field group read the same chapter as part of the outing. This pace allowed us to read about two books per month as a class. Each field experience also had a writing component that began with a mini-lesson on topics such as word choice, quotations, prepositional phrases, or voice—depending on the needs we observed the previous week. In the field, we gave students time to journal, provided constructive and positive feedback on their writing, and offered them chances to share their writing. We emphasized the idea that writing is process. Often times, the way reading and writing are taught in schools hinders students. If you sign a child up to play soccer, but all they ever do is skill drills and they never have a chance to just play the game, they are not likely to keep playing soccer. For this reason, we wanted students to feel safe writing unencumbered in their journals. Our students knew we would not grade their field entries on writing conventions such as spelling, grammar, and sentence structure, because their field journals were the place to capture the magic of their experience.

Each day we awarded a Reminderband rubber bracelet to the best writer. It said: “Mount Logan Discovery writer of the day!” We tracked who earned the bracelets each day to ensure that all students had an opportunity to receive a wrist band. This became a

fun and meaningful reinforcement and was the only extrinsic motivator we used. It also allowed us to celebrate latent writing gifts we might have otherwise missed. Back in the classroom, students chose their best journal entries and polished them during writers' workshop time. Writers workshop is an authentic approach for teaching writing, where students edit and revise their own writing, peer-review one another's writing, check for spelling errors (and patterns of spelling errors), and participate in conference with teachers to improve their writing quality. This is the part of the writing process where we paid attention to grammar and spelling. Inadequacies we noticed in student writing determined topics of mini-lessons we taught the in the following weeks.

Bryce, Jann, and I looked forward to parent-teacher conferences. We viewed them as opportunities to build our students' confidence. Utilizing a student-centered format with an open-house atmosphere made conferences meaningful for parents and students. Students prepared in advance to showcase their best writing, discuss their favorite book they had read in class, share details about current projects, and discuss their current grades. Bryce, Jann, and I moved around the classroom and shared sincere compliments and updates about each student and, if needed, discussed concerns.

During one conference, as I walked around the classroom, chatting with parents and students, I overheard a student, Lacey, proudly reading her best writing to her father. When she finished, her father asked, "What book did you copy that from?"

"I did not copy it!" Lacey exclaimed. "I wrote it!"

I thought the father was joking, but he asked again, flatly, "No, really, what book did you copy that from?" I had to intervene to convince the father that the writing was

original. Lacey, of course, took this as a compliment and her dad apologized to her profusely, then said, “Okay, you better read that to me again!”

The first few weeks of school, it was difficult to coax students to read their writing out loud. Their skills and confidence improved with their field journaling each week. As their trust in their peers and teachers waxed stronger, their willingness to share increased. That spring, Lacey and a group of students had just finished reading their writing to the group as we sat in a circle, immersed in a long, sloping meadow in Wood Camp Hollow in Logan Canyon. Several women walked past on the nearby trail. Lacey, who was a fairly shy child, jumped up and ran towards the hikers at full speed, the other students dashed after her, journals in hand, bounding through the tall grass. The unsuspecting hikers appeared stunned when Lacey asked, “Do you want to hear what I wrote!” But it was not actually a question. It was a command.

The curious hikers listened intently and their faces lit up with pleasure as Lacey, and the rest of the field group, each shared their descriptions of their experiences in nature. Watching our students evolve from the beginning of the year, when they did not dare share a sentence with one another, to mobbing complete strangers to share their writing, was profoundly satisfying. I thanked the hikers for allowing us to halt their momentum. But they thanked us for brightening their day instead.

“Are you a private school?” one woman asked. Before I could answer, another asked, “Or a charter school?” These were questions we were accustomed to answering when we were out with students. Each time we proudly responded that we were a public middle school program.

Lacey's story is one of many. Through frequent small-group field programs, integrating reading and writing, and following up with a writers' workshop format in the classroom, we found success motivating and teaching students to write effectively.

Elizabeth. Three miles into our summer-school day hike to the summit of Naomi Peak, Dave Anderson, Bryce, and I had a tough decision to make. If we were going to arrive back at school by 4:00 pm, as scheduled, it was time to turn around and return to the trailhead. We were just a mile from the summit, with 16 eleven-year-olds. Fifteen of our students could be standing on the summit already, but Elizabeth, a heavy child, slowed our pace. About a mile back, I asked if she wanted to keep going or head back to the Tony Grove parking lot. "I want to make it!" she said, through her long bangs and thick glasses. Her face was red, her shirt sweaty.

Dave, Bryce, and I stepped aside to talk about the situation. We encountered similar challenges to our current dilemma many times in the past. "She probably has not ever walked half this distance in her life," I say, "At this pace we're probably another hour or more from the summit. What do you think?"

"We have to get her there," Dave replied, "We can call all the parents from the summit and tell them we'll be back closer to 6:30 pm." Bryce and I concurred.

Dave waved Elizabeth to the front of the group and asked her to lead us to the summit. Dave, Bryce, and I have seen students overcome everything on the trail from blisters to barfing. On this July day, we watched Elizabeth take one painful step after another, determined to reach the summit of Naomi Peak—which, at nearly 10,000 feet tall, it is the highest mountain in the Bear River Range.

Elizabeth slowly fell from the front of the pack to the rear. The distance between her and the rest of the class grew. Dave and Bryce continued with the faster students while Elizabeth and I walked the final switchbacks at her pace. I shared my Skittles to keep her moving along and distracted her by asking questions about her interests. Elizabeth was spent when the two of us approached the summit, about 15 minutes behind the group. The others were all nestled down on the flat rocks that make up the summit, writing in their journals. I smiled at Elizabeth and gestured with my hand for her to pass me for the final few steps to the summit. Once there, I grabbed her hand, like a victorious boxing champ, and raised it high into the air. The whole class cheered and clapped. She yelled, "I did it!"

Several weeks into the school year, students were busy working on a math assignment. I noticed Elizabeth slumped back in her chair. Her pencil rested on her desk and her hands fidgeted with her turtle-shaped eraser. I walked over and crouched down next to her at eye level. "I can't do this," she muttered, "It's too hard!" I looked at her and smiled. She looked back at me confused and asked, "Why are you smiling? You are supposed to be mad."

"I'm smiling because I know you can do hard things," I said, "remember Naomi Peak last summer?" She looked back at me, nodding. A smile spread across her face. She leaned forward in her chair and picked up her pencil.

"Can you help me with this problem?" she asked.

This is one instance, of many, where we observed that the confidence and tenacity students gained in the mountains and on rivers, spilled over into academics.

Faith. During the 2013-2014 school year, Faith Hunter was a typical sixth-grade girl, trying to figure out who she was. Faith was enthralled with her friends, changing her hair color, playing video games, and singing along to the pop charts. Her favorite song, Pharrell William's *Happy*, emulated her personality—smiley and a bit goofy at times.

The first week of January, Faith joined a field group of eight students visiting Hardware Ranch Elk Refuge as part of our ongoing service learning partnership. Students worked with wildlife biologists to feed the elk each day and assisted wildlife biologists in baiting a trap (a corral with a spring-loaded gate), so a sample of the elk herd could be ear tagged and tested for Brucellosis, a disease that causes cows to deliver their calves prematurely. The more we brought students up to Hardware Ranch, the more trust we developed with their staff, and the more open they became about what they allowed our students to do. Rather than using the John Deere tractor for feeding, ranch hand Kelly Pitcher arrived early so he could hook up the team of draft horses to pull the hay wagon for our students.

Big, lazy snowflakes fell, as we headed out into the refuge meadow, riding on a sleigh loaded with 5,000 pounds of hay to pitch and kick onto the frozen ground for the wintering elk. The Clydesdale's led the way. Nearly 600 elk began to walk across the snow-covered landscape towards us. Kelly, with his giant hands and gentle way, taught each student to drive the team. Faith was a little hesitant, as were the others, but a big grin spread across her face when she realized she was holding the reins.

“Say, ‘Haw!’ and whip the rein in your right hand softly to the left,” Kelly told her, “and they’ll turn to the left. See, it does not take much. These are smart horses. Good



Photo 21. Faith, at the reins at Hardware Ranch Elk Refuge.

horses.” Kelly’s face glowed as we moved rhythmically through the falling snow. Faith, at the reins, beamed with delight.

The moment reminded me of our first field experience that year. I had access to a trailer of standup paddle boards (SUPs) and took students to First Dam, a small reservoir at the mouth of Logan Canyon, a five-minute drive from the middle school. After putting life jackets on each student and instructing them on paddling, I helped each of the eight students, one by one, balance on their SUP, and pushed them away from shore. Faith was the last student. Still standing in knee-deep water, I turned to help her get on her board, but she was not in the water. She stood on the bank, shaking her head side to side.

“I’m not doing that,” she said, fearful that I was going to force her to try.

I looked at her and calmly said, “Faith, I’m not going to make you do anything you do not want to do. Okay?”

She nodded.

“But,” I said, “if I hold this board steady, do you want to try to sit on it? The water is only knee deep here.” She nodded her head again and stepped forward, wading into the cold water, squealing a little. I held the board while she sat on it and smiled, though she was clearly nervous. I assured her that her lifejacket was on tight and that she was safe. After a minute or two of watching the other students paddling around—some were standing, some were kneeling—I asked if she wanted to try kneeling. She nodded her head and moved to her knees.

“Hand me the paddle,” she said. I steadied the board against my thigh with one hand while I passed the paddle with my other hand. I could feel the board trembling. I reminded her how to paddle and she tried a couple of strokes while I held the board. She looked out at her friends again. “You can let go,” she said. And I did. She paddled off, wobbling side to side on her knees, but she kept her balance—and she never looked back.

I paddled out to the students and found Faith laughing with the others. After about 20 minutes on the water, I informed the group that it was time to head back to shore to write in our field journals. Faith was the last one to get off her board. I motioned to her to come closer to the shore.

“Hold on!” She said with resolve. Then she cautiously stood up. Full of pride and confidence, she yelled, “I did it!”

About 2 weeks after Faith drove the team of Clydesdales, she missed a week of

school, suffering from a bad head cold. Saturday morning, January 25th, she could not be awakened. Faith passed away later that day at Primary Children's Hospital in Salt Lake City. She had contracted a rare case of meningitis.

Her death hit Jann and me hard. I watched the posts on the Mount Logan Discovery Facebook feed carefully that night and did not see activity from other students. Sunday morning was the same. I was worried about rumors being spread, and I was worried that kids would not come to school on Monday out of fear that they might also contract meningitis. My principal, Dr. Monson, was able to contact the health department and get assurance that Faith's condition was a non-contagious and there was no risk to other students.

I reached out to Faith's mother, through Messenger, expressing sorrow and sympathy from Jann and me, and asked if she would like us to post an explanation on the Discovery Facebook page for our students, to prevent misconceptions from spreading. My plan was to wait until Monday, after school, so we could break the news to our students in person. But mid-day Sunday, the Discovery Facebook feed was abuzz with students posting about Faith. I called Dr. Monson and told him that I thought I should post the update immediately. He agreed. I posted the following:

Our hearts are full of sorrow today. Our student, Faith Hunter, passed away unexpectedly on Saturday from a rare non-contagious form of meningitis (an inflammation of the membranes surrounding the brain and spinal cord). Please keep her family in your hearts and thoughts at this time. We are grateful to have had the chance to know and experience her generous spirit and contagious smile and laugh. A "Like" here means "Love."
(This was prior to the addition of the 'love' option on Facebook).

I stayed in communication with Faith's mother and she expressed her appreciation for our

efforts to inform the other students. I cannot imagine the depths of sorrow she and her family felt. They were remarkably strong.

Monday morning, Jann and I arrived early and were at the classroom door to greet students as they entered the room. When the bell rang, we talked to students about what happened, how we each cope with tragedy, and answered our students' many questions. We all cried together. Students wrote down and shared their favorite stories of Faith. Jann and I put all the students' memories of Faith in a folder, along with her field journal and portfolio of classroom projects. Faith's journal was full of her descriptions of life experiences and we provided photographs to match—images of Faith and her field group posing proudly by a roaring flint and steel fire they had created, conducting water quality tests on the Blacksmith Fork River, canoeing, snowshoeing, holding the reins of the Clydesdales, and two pictures of her on the SUP—one kneeling, and one standing. Jann and I delivered the items to Faith's family that evening. These mementos were nourishing for the family and they displayed many of the photographs at the funeral later that week. I was grateful for Jann's caring presence.

Four years later Faith's parents welcomed me in their home again. My photographs of Faith from Discovery field experiences hung on the wall, alongside framed pictures of the rest of the family. Though the pain of losing a child remains excruciating, they spoke openly, alternating between tender emotion and laughter about little things Faith would say or do. Her father said, "The only things we heard her talk about regarding school, was her friends and Discovery."

Her mother added, "Through Discovery, we were able to see Faith's personality

come out. She tried things she would not have tried with us.” They talked about enrolling each of Faith’s older siblings (she was the youngest child), in a smaller, more personalized high school where they found success. Our conversation shifted to the awkwardness of middle school years. “You could not pay me enough to go back to that time of life,” her mother said, “but Faith loved Discovery” (C. Hunter & K. Hunter, interview, January 17, 2018).

As I drove away from their home it struck me, that if we handed out worksheets, assigned textbook reviews, and taught with scripted reading programs all year—we would have had nothing meaningful to offer the family. Faith’s parents do not look back at her test scores—those do not matter in the context of the frailty of life. What matters are the experiences that shape character, that build relationships, that push children to grow and learn and dare—experiences that spawn laughter, inspire them to care, and allow children to discover the joys of living.

Donor and Parent Perspectives

The Noorda’s. Suzanne Noorda and her husband, Dr. Barry Noorda—an Obstetrics and Gynecology specialist at the Women’s Center—were the donors who purchased the used 1999 Chevrolet Suburban for Discovery. Suzanne was also one of the parents who led the charge against the school district after Dr. Johnson’s resignation from the middle school. Both of the Noorda’s daughters were in my science class, in different years, prior to the creation of Discovery. Both of their daughters also participated in our Summer Learning River Rats program. The Noorda’s were crucial to the creation and success of Discovery, indirectly, though both deflected the notion when I spoke with

them one evening at the Women's Center (B. Noorda & S. Noorda, interview, February 5, 2018). Barry was still in his scrubs.

“Our daughters were very different,” Suzanne said, “When Allie signed up for River Rats, we did not know the details of your program, it just sounded like a summer adventure.” School came easy for Allie, she always earned good grades. Though she never struggled academically, her parents believe field experiences changed Allie's self-concept. “Summer Discovery changed her perceptions about what she could do,” Suzanne said, “You took a good writer and turned her into a great writer. And that is what she does for a living now—she writes for a public relations firm in New York City that works with companies all over the country.” After a pause, Suzanne continued, “She is a skilled and confident writer—and that began with her Discovery journal.”

The Noorda's described their other daughter, Amanda, as a round peg getting shoved through a square hole. She struggled in school, was receiving special education services, and did not come across as being expressive. “When Amanda got outside with your program,” Barry said, “she started to bloom.” “To some degree everyone hits what they are told to expect from themselves,” he continued, “and for Amanda, it was very eye-opening to get out there and realize she could express herself in her own way. And frankly, from a writing standpoint she is exceptionally good. Summer Discovery allowed her the freedom to do that.”

“Allie did not struggle with academics and Amanda did,” Suzanne continued. “Allie did not realize being smart could be outside of books and Amanda gained confidence through the outdoor experiences in book smarts that she never had before.

Now she is about to graduate and become a special education teacher. Discovery opened our girls' minds in distinctly opposite ways. Look where it took them. It was so impactful."

"I just find it fascinating that we signed our daughters up for a science-based summer program and they came home as creative writers who knew how to express themselves," Barry added, "and the other part is that it stuck with them. For the longest time, both of them would point out stuff about animal characteristics, describing foliage and stuff like that. It stayed with them," he said, before becoming more animated, "I just remember thinking, 'Geeze, there are just so few classes in my life, where the information stayed with me like that, for a really long time.' Our girls held onto that. It is part of who they are now."

Suzanne nodded slowly in agreement, "Our girls are just better stewards in the outdoors because they learned to care."

I asked the Noorda's why they chose to donate the Suburban when there are so many other causes they could have supported. Without hesitation Barry said, "We had a personal connection to your approach because we saw it how impacted our girls. That became very real to Suzanne, as mom who was watching her kids benefit from the experiences you offered."

"Yes," Suzanne said, "It was personal for me. But it also goes back to Amanda. Your program worked. Watching my daughter struggle, as a mom, caused a lot of anxiety and I did not want other people to go through that same pain. I wanted to help others out. It was easy to make donation for that cause."

“Even just being in a canoe. Not every kid gets to do that in their life—ever. As simple as that sounds, it makes a difference,” Barry said. “Those basic experiences are life changing. They are priceless. I do not care if students do not come out of those experiences with super-self-confidence and the ability to write—they got to be on the river or up on a mountain. And there is certain value in that that you can’t attach educational outcomes to, or a dollar amount to. These impactful outdoor experiences do not need any justification.”

The contrasting experiences of the Noorda’s daughters is not something I had thought of prior to our conversation at the Women’s Center (B. Noorda & S. Noorda, interview, February 5, 2018). Both Allie’s and Amanda’s stories illustrate the range of many other students’ who were part of Discovery programs, whether in the summer or during in the school year.

Carlos. The population of Mount Logan Middle School is currently 1,314 students and trending downward (Startclass, 2018). The student body vacillated between about 1,250 and 1,400 students over the last decade, making it the largest middle school in the state of Utah. During that time, the minority population of the school varied between 35% and 40% of students (Startclass, 2018). Just over 60% of students at the middle school were eligible for free or reduced lunch, qualifying the school for federal Title I funding (Startclass, 2018). These are comparably high ratios relative to other schools in northern Utah (Startclass, 2018). Percentages of ethnic diversity and poverty levels on our Discovery rosters were consistently 5-10% higher than that of the school.

In the hallways before and after school, and on the school grounds during lunch

break, noticeable large groups of Caucasian students bunched together and large groups of Latino students gathered in separate areas (J. Humpherys, interview, February 27, 2018). There were exceptions, but the pattern was evident. After forming Discovery, Bryce and I began noticing groups of Discovery students hanging out together during these transition times—clusters of students that transcended ethnic boundaries. Our belief was that students of various backgrounds formed bonds through our small-group field experiences. To compliment this, many of the books we read intentionally had storylines that broke down racial barriers and provided opportunities to talk about these important issues. A former Latina student confirmed our observations in a recent conversation (A. Maes, interview, January 14, 2018). She felt that the frequent small group outdoor activities and the diversity within the groups enabled students to establish friendships across racial, economic, and religious lines (A. Maes, interview, January 14, 2018).

Carlos Roundy was the donor described previously, who contributed approximately \$150,000 to fund Summer Discovery and to create and sustain ESL Discovery at the Middle School through his non-profit organization Youth Discovery, Inc., which was inspired in name by Mount Logan Discovery. A self-described “gringo,” committed to empowering minority students, Carlos contributed more than \$700,000 of his own money to support Latino youth programs. He preferred to support programs with an outdoor focus, “to unlock potential and create a more positive future for not just Latinos, but everyone” (Youth Discovery, 2018). “Programs like Discovery and ESL Discovery, while disguised as language programs, are really programs that change the self-concept of youth,” Roundy said in a 2010 newspaper interview. He continued,

By being in small groups with a caring adult, that adult takes on the role of a mentor and role model. In the outdoors youth face and overcome challenges that they did not think possible. Overcoming physical challenges transfers their thinking to realizing that they can overcome mental and emotional challenges. (Rouse, K., 2010)

Roundy's motivation to contribute to the expansion of Mount Logan Discovery was similar to the Noorda's. Roundy said,

Students are led to discover what their capabilities really are and begin to expect more of themselves. Discovery and ESL Discovery are life transforming experiences that change the whole self-concept of students. (Rouse, K., 2010).

As we worked to raise funds for Discovery, it became evident that people want to be part of things that are larger than themselves. They want to commit resources to causes and organizations that impact individuals and communities—that enhance humanity. The



Photo 22. A student writes ideas in his journal in the infant stages of the Logan River interpretive trail signs project.

Noorda's repeatedly mentioned their satisfaction that Discovery impacted many underprivileged students. Neither the Noorda's or Carlos Roundy, Faith's family, or the dozens of other donors who made contributions, large or small, asked to see testing data on our students—they were not interested in standardized testing data. They were interested in the larger impacts Discovery was having on the lives of children and connections they were making to the natural world.

In Their Own Words: Perspectives of Parents and Students

When we announced on the Mount Logan Discovery Facebook page that the program would be closed down at the end of the 2016 school year, more than 60 parents and students commented on our post, sharing publically the impacts Discovery had on their lives.

Here are a few examples from parents (with student pseudonyms).

Homework, and reading, all throughout elementary school was met with a lot of tears and frustration for my daughter. We learned that she had a learning disability in the 3rd grade. We started to see progress, however she never was able to catch up until she was enrolled in the Discovery program this last year. This was the first year that she seemed really excited about going to school. Before the Discovery program she would never just sit and read a book for fun. Now I find her reading for her own personal enjoyment. Her writing skills have flourished over the past year, as well as her interest in Science. My daughter made the Honor roll every semester this past year! If she had not been in the Discovery program, I do not think she would have achieved that goal. And for the first time ever she left the school year reading at her grade level. – A. H.

My oldest daughter was fortunate enough to have been enrolled in Discovery. It was wonderful watching my daughter make the connection about the importance of education and its application to the real world. She seems more confident and still speaks enthusiastically of the things she learned while participating in the Discovery program. It is understandable that this type of learning may not translate directly to district or state exams however it was far more life impacting

and educational than can be measured. – K. B.

Discovery was the saving grace, the door that helped reopen my daughter's love for learning. Ashley struggled in elementary school and was really terrified to begin sixth-grade but then she got into the Discovery program and it changed everything. Her excitement for learning grew, which gave her the desire to push herself and fueled her love for school ... she was on the honor roll all of sixth-grade and has continued to excel through her educational journey. She will soar to greater heights and it is all because of the great impact of the Discovery program. Thank from the bottom of my heart. – S. C.

Thank you for caring more about my child's successes on every level, rather than only their test scores. That is one reason why Discovery was so essential within the public school system. Kudos for thinking outside the box and recognizing a way to teach children who do not fit the traditional way of learning. I can't wait to have my kids be part of the new charter school! – J. P.

It was amazing to watch you guide my children down rivers, across lakes, and through the wilderness of the Grand Teton National Park while not only teaching literature and science, but life lessons that can never be measured in a "standardized test." You all do incredible work and I feel blessed that my son gets to learn from all of you this year. – J.A.

I had two daughters go through the Discovery program and it helped each of them in innumerable ways. It provided interest and context to regular school subjects that kept them excited to go to school and keep asking questions. It provided the hands-on experience that facilitates learning and gave them the "Ahh" moment. They were able to see how the subjects worked together and how they build upon each other. The teachers genuinely cared about each child. The program gave my children confidence to reach out to others and help them in social situations or schoolwork, confidence in themselves—to believe they have the ability to reach their goals and dreams. My girls have continued to excel scholastically and Mount Logan Discovery made the difference. I wish that there had been a program like it when I was a kid, I needed it. – B. T.

The following descriptions are from former students:

I was in the first Discovery class (08-09). It had the greatest impact me. Some of the greatest lessons I was taught were up the canyon, at Hardware Ranch or canoeing down a river. Discovery taught me how to write and taught me to love writing. I still write to this day. In Discovery, we also read tons of books. I'm the kind of person that does not like reading. Reading just is not fun to me but I always enjoyed the books we read in Discovery. I loved reading. I feel that Discovery is one of the best things I've been able to be a part of and I'm grateful

for the experience. Because of Discovery I aspire to be an author one day. – K. J.

Discovery was amazing. It taught me how to realize what was going on with the world around me. All the trips were outstanding. I still have all of my drawings and my notebook from my class. They taught us all to connect. As soon as we walked into those doors we were all friends. No drama. No fighting. We all got along and worked in a team. – B. C.

I was not excited about middle school, but I got to be a part of this the first year it was started. I remember putting the logo on the vans and going somewhere new every week. Mount Logan Discovery taught me that I have a passion for writing. If I embrace the surroundings around me I can find the right words. This program gave kids like me some kind of hope. The kind of hope that got me through all four years of high school. The kind of hope that is still instilled in me today that I've used to make it through my first year of college. – E.T.

My experience with the Discovery Program created my desire to learn. Not only does this program help students who are struggling, but also the students who excel. We spent time learning by being out in the field, through hands-on activities. I was able to be in the Discovery program throughout the year and during two summer sessions. During that time my writing skills improved, as well as science and math. I was excited to go to school and spend time in our “floating classroom” learning about wetlands, in a wetland. It was one of the neatest experiences, it made a difference in my learning and in my life. Thankful for the friends I made in that program, what I learned from it, and where it's gotten me over the course of my schooling, and for everyone that contributed to making it happen! – K.R.

Perspectives of Teachers

Both my thoughts and Bryce's thoughts on Discovery permeate this narrative.

When I recently spoke with Jann she became reflective. “I've watched former Discovery students from the last 2 years move through seventh and eighth grade and some of the other teachers have a hard time managing them. They've spent all their time in the Refocus Room. And I think, no way. Those are capable kids.” She continued, “I think a lot of their success while they were in Discovery is based on the fact that they were happy to be there. They were not stressed.” She paused, nodded her head slowly, and

smiled, “They were happy.” Then Jann added:

I’m sitting here trying to figure how to teach ecosystems in my current classroom. In Discovery, we could take them to an ecosystem and let them talk to a wildlife biologist. We could integrate the experience with the book we were reading. We do not read books at MLMS anymore. We do not’ read any books. It is all the basal. I asked one of the new teachers if she has ever thought about reading a novel and she said, “Well, I do not’ think we are supposed to.” It is very different. I’ll tell you I miss it more and more all the time. There was a need and I’m grateful that I could be part of Discovery and watch kids emerge and thrive.

Jann also noted the benefits of having a constant, built-in Professional Learning Communities (PLC) with a teaching partner. “Team teaching was powerful. It was real team teaching. We became better teachers by watching each other, learning together, and solving problems together,” Jann said. “Even just having two adults who understood our students and what they needed to do to succeed, made difficult situations doable. When one of us became tired and frustrated with a student the other one could take over” (J. Humpherys, interview, February 27, 2018). Bryce and I both agree with Jann’s sentiments. We also believe that teachers who struggled as students are more empathetic for students in their own classrooms who struggle.

Sarah Kerley-Weeks, the last facilitator of ESL Discovery, indicated she would have benefited from more professional development on our part, to train her on how to make field experiences more effective (S. Kerley-Weeks, interview, February 27, 2018). She also saw strong value in field experiences. “The ESL students do not have the same opportunities as the affluent kids. We know that background knowledge matters—it allows academic concepts to stick” (S. Kerley-Weeks, interview, February 27, 2018). She expressed that more training for field experiences would have helped her be more effective. “We do it wrong in schools,” she said, “We drill academic concepts in while

we teach a unit, then have a celebratory activity afterwards. Discovery flipped that model by providing meaningful experiences up front that become the context for teaching content standards. Those experiences became a point of reference in the classroom” (S. Kerley-Weeks, interview, February 27, 2018).

Themes

Themes emerged while sifting through these and hundreds of other comments on the Discovery Facebook page, hundreds of student writing samples, online comments about newspaper articles, quotes in newspaper articles, and personal messages we received over the years. It quickly became evident that all the themes were influenced by the outdoor experiential learning component of Discovery, and all were described as having a long-term effect on participants. I placed the main themes into three categories, (1) academic learning, (2) relationships, and (3) attributes. The strongest five subcategories categories, in order, were: (1) references to how field programs changed participants’ lives for the better; (2) instilling a love of the natural world; (3) improved writing skills and a love of writing; (4) enduring attitude changes about life and academics; and (5) improved academic performance. Other themes that surfaced were the importance of joy and happiness, the value of concrete experiences, confidence, hope, building character, and creating friendships.

Parents tended to describe the impacts Discovery had on overall quality of life, character development, increased confidence, exposure to career options, and academic success. They also overwhelmingly mentioned the long-term impacts the program had on

their students in the areas described above. Students were more likely to describe the benefits of Discovery that included learning to love being outside, becoming better writers and readers, creating lasting friendships, and feeling connected to the local community. I believe it is also fair to conclude that Discovery outdoor field programs endeared parents and students to the middle school.

Analyzing student writing samples from field programs is subjective and difficult to categorize. As each school year progressed, both the quality of student writing improved, and the length of student entries increased. We began each class with the “The Word of the Day,” vocabulary instruction based on our daily readings. These words frequently appeared in student field journal entries. But one strong theme that continuously surfaced is the number of students who wrote—unprompted—about how calm they felt, how peaceful they felt. “I’ve never been this relaxed before.” One student penned, while sitting on a rock outcropping overlooking Hardware Ranch and the Blacksmith Fork River below. Another student, writing in the foothills on the spring equinox wrote: “The sun’s warmth beats down upon my face, drawing me away from the group, in awe at the everlasting beauty. I love where I am right now, so far from the harm and ugliness of cities. It seems as if all the world is paused, the unnatural beings and artificial joy are shut out and the world is how it once was, calm, peaceful and everlasting.”

Numbers

We put 51,000 miles on the white Suburban and about 35,000 miles on the ESL

Discovery Excursion. In 8 years, the two vehicles transported about 1,250 different students on over 3,700 field experiences. If you count each time each student ventured out, the vehicles provided upwards of 30,166 individual field experiences—all for the initial investment of the cost of about five laptop computers per vehicle, thanks to some very generous individuals. Placed in that context, the thought of purchasing a vehicle for school use may not be so daunting.

ESL Discovery served close to 300 students over 5 years. Mount Logan Discovery served about 550 students. About 600 students participated in our summer learning programs over 12 years—and of those students, about 250 were not part of the school year Discovery program. Nearly 1,100 students were impacted by Discovery through participation in long-term field experiences. These numbers do not count nearly 300 additional students who participated in one or two field experiences during the fourth year, when we experimented with providing all the sixth-graders opportunities to get out of the classroom in small groups. As difficult as that year was (recall the reference to the Eagles lyric, “Like a bluebird with its’ heart removed...”) it allowed us to realize the benefits of getting each student out in the field on a weekly basis throughout the year.

Consistent Small Group Field Experiences Are Crucial

Field experiences were the backbone of Discovery. Each student had a chance to venture out once per week throughout the entire school year. Providing many students just one or two small-group field experiences (like we did the fourth year of Discovery) did not have the same impact as consistently providing weekly field experiences. This conclusion

is based on several factors: (1) Because other teachers were not invested in the program, they understandably viewed having small groups of students pulled out of their classes as an interruption that made teaching more difficult; (2) This also created a general disconnect between the field experiences and what happened in the classroom because the other teachers were not there to utilize the outings as a point of reference for academic concepts they were teaching; and (3) Finally, one or two field experiences are not enough time to develop relationships of trust with students that pay dividends in the classroom. With a few exceptions, students from that fourth year are much more difficult for me to recall. We commonly had students in Discovery who did not kick their learning into high gear until months into the school year. Bryce, Jann, and I each attribute their eventual progress to establishing trusting relationships through regular weekly field experiences (J. Humpherys, interview, February 27, 2018).

“I always thought that kids on field trips would always be out of control and unmanageable,” Jann said. “In Discovery, I realized that no, that is not true. Kids on field programs can learn when they understand expectations” (J. Humpherys, interview, February 27, 2018). Even with people walking by, birds flying overhead, and other possible distractions, “students were still able to stay focused,” Jann said, “It was good for them to learn how to block things out. Not only that, field experiences were essentially small-group interventions where we could provide individual time for students.”

In the context of increased incidents of mass shootings in schools, Sarah Kerly-Weeks, who facilitated ESL Discovery field experiences for a year, believes that outdoor experiences have a way of connecting people together. She gave the example of seeing a

bull snake on a trail with a field group one afternoon. “None of the students in my group had ever seen a snake before,” she said, “that experience formed a bond between all of us that day” (S. Kerley-Weeks, interview, February 27, 2008). Second, she said, “There is something about spending time in nature that cultivates a respect for life. When students interact with wildlife in their natural habitats, they develop an affinity for living things. They care” (S. Kerley-Weeks, interview, February 27, 2008). People who feel connected to others and have respect for life, are less likely to lash out violently.

In typical classrooms, the extent of many teachers’ relationships with tough students involves pressing them to do better or getting after them to arrive to class on time, complete work, or pay attention. Often, these interactions create negative spirals and disengaged students become more frustrated. During the other years, with consistent field programs, we established caring relationships with Discovery students. Pushing students out of their comfort zones and teaching them to paddle a canoe, rock climb on a top-rope, or hike to a small foothills summit enabled them to view teachers as advocates. When we did have to lean on our students in the classroom, that was not the extent of our relationship. We had enough positive interactions that students generally responded well to our corrective prompts in the classroom.

“Field experiences were everything—they were crucial,” Jann said. “They allowed kids to bond. They allowed teachers to bond with their students. You almost became a parent in a way—your students became your kids and field programs amplified that feeling. You end up having informal conversations about character. You want to help them succeed” (J. Humpherys, interview, February 27, 2018)



Photo 23. Field experiences provide opportunities for students to develop meaningful relationships with peers and teachers.

Implications on Enrollment and Funding

One of the most difficult challenges the Logan District faces is declining enrollment. Between 2012 and 2017, the number of students in the district dropped by 497 students, or nearly 10%, from about just over 6,000 students in 2012 to 5,566 students in 2017 (Cannon, 2012; Dolan, 2017a). Nearly half of that decline (238 students) occurred the year after Discovery, and other middle school programs designed to support students, were discontinued (Dolan, 2017b). Though many factors influence the decline, one cause is that Logan School District is surrounded, or land locked, by Cache County School district preventing further housing developments. This creates a stagnant student population (Wood, 2017). Exacerbating the situation is the increasing number of Logan residents sending their students to charter schools, private schools, or choosing to home school their

children (Dolan, 2017b). When asked by a district official why numbers are down in the district, another administrator in the district (who wished to remain anonymous) replied with a question of their own, “Well, frankly, the high school is in disarray with construction, all the elementary principals were shuffled around to new schools, and all the quality programs at the middle school were cut—why do you think enrollment is down?” (Personal communication, October, 2017).

These numbers and conversations are by no means presented as correlation, but they are, perhaps, indicators. This information, coupled with the number of parents who claimed to keep their students in the district for the express purpose of the Discovery program, provides reason to believe that Mount Logan Discovery, to some degree, combated the trend of declining enrollment. In many of these instances, parents did not just pull their sixth-grader, but they also pulled their younger, and older children from the school district as well.

It is well known that many students are lost and struggle during the transition from elementary school to middle school (Akos & Galassi, 2004; George, Breslin, & Evans, 2007; Malaspina & Rimm-Kaufman, 2008). Programs that give hope and allow students and families to build relationships with peers and educators increase retention, academic success, and reduce the stress of adjusting to a middle school environment from more nurturing elementary school settings (Akons & Galassi, 2004; Akos & Kurz, 2016). Discovery filled this void by making personal contact with each incoming sixth-grader in the spring prior to transitioning to the middle school, providing a quality outdoor summer learning program that built relationships and confidence, and providing outdoor field

experiences throughout the school year that fostered team building and provided purpose and application for academic concepts.

Although we did not know about it at the time, our approach was strikingly similar to a successful transitional program implemented at Albert Leonard Middle School in New Rochelle, New York in 2007, which used a three-phased approach to contact students as fifth-graders, enroll them in a summer academy, and provide team-building and character education programs in the school year (George et al., 2007).

With the smaller class size (our teacher to student ration was about 1:19 instead of 1:25), Discovery cost about one half of an extra full time equivalent (FTE)—one FTE equates to funding for one full-time teaching position. I can't verify the actual numbers, but it is possible that district leaders, in their efforts to save half of an FTE by cutting Discovery, actually had a net loss of funding based on the students who withdrew from the district in the aftermath. At the least, funds gained or lost were likely a wash. These estimates do not factor in any of the grant money or donations that were awarded to Discovery, which totaled about \$250,000 over 8 years. At minimum, districts and other educational institutions should assess the impact outdoor education programs—or programs such as music, art, or drama—have on overall enrollment before discontinuation based on financial strains.

Constructivism

I have recounted stories that demonstrate how Discovery was the embodiment of a teaching philosophy that Bryce and I shared from the beginning—a philosophy that was

synonymous with social constructivism learning theory. Constructivism is based on the belief that knowledge is not passively received, but actively constructed in learners' minds, that teaching is most effective when it occurs in authentic contexts, and that social circles influence learning (M. G. Brooks & Brooks, 1999). For me, these beliefs extend back to my readings of Muir, Thoreau, and Emerson—and my experiences in the Wasatch Mountains as a high school student. The terminology, background, theorists, and skills to put constructivism into practice were firmed up as an elementary education undergraduate student and honed later, as a graduate student, while Bryce and I were in the process of creating Mount Logan Discovery.

There are many common misconceptions about constructivism among educators. I think of constructivism as a continuum rather than an “either-or.” Constructivism does not mean that students do whatever they want, and it does not mean teachers have to reinvent their curriculum to put principles of constructivism into practice. Discovery was founded on the conviction that “Traditional methods of instruction are inadequate to help students form deep meanings and thoughtful understandings” (M. G. Brooks & Brooks, 1999).

To use a river analogy, there are two main ways to set up a whitewater raft. An oar rig, where the guide sits in the middle and pilots the raft with oars while the passengers simply hang on, is akin to traditional, teacher-centered, desks-in-a-row, kids sitting at attention approaches to teaching. A paddle raft is analogous to constructivism. In this configuration passengers become participants who propel the raft with their paddles while the boatman or boatwoman, sitting on the stern, coaches the crew and

steers—or guides—the raft through the rapids. While planning Discovery instruction, we constantly sought ways to “put the paddle in our students’ hands.” We looked for larger, purposeful projects that would transform our curriculum standards into a means, rather than an end. This allows students to see their education itself as a river. They can look back and see where they have been, and they can look forward and see where they are going.

Stated in practical terms, our students were less motivated to learn, less likely to develop deeper understanding of concepts, and less likely to retain ideas over the long-haul if they are learning curriculum because they “have to.” This is teaching the curriculum as an “end.” Authentic projects make the curriculum a “means,” and allow students to be active learners. When students write because their words will be part of an interpretive trail sign on the Logan River, when they learn about the seasons by building a solar calendar on the school grounds, when students learn about microorganisms in the context of Brucellosis testing at Hardware Ranch Elk Refuge, when students learn about heat transfer after building a flint and steel fire—learning has purpose and school becomes an integral part of a student’s life.

Combining the thoughts of Koch (2010) and M. G. Brooks and Brooks (1999; J. G. Brooks 1999) I have identified six steps of how we put constructivism into practice in Discovery. They are as follows.

1. Have clearly defined academic goals structured around big ideas or projects: So students do not have to ask “Why do I have to learn this?”
2. Create connections and relevance to students’ lives: Help students find intrinsic interest and value in projects.
3. Challenge students’ ideas—or constructs: Present scenarios, problems, or

challenges, that may contradict or stretch their understanding of concepts. For example, a constructivist teacher might ask kindergarteners learning about living and non-living things if water is living “because it moves,” and then ask them to explain their reasoning.

4. Seek and value students’ point of view: Give students multiple opportunities to think, interact, and express their understanding and when students give a response, ask them to defend their stance—whether they were right or wrong or somewhere in the middle.
5. Build in explicit opportunities for students to reflect on the learning activity or experience: Examples include frequent opportunities to write summaries, draw diagrams, or explain thoughts in journals or in conversations with peers, parents, or teachers.
6. Assessments are embedded in the context of learning—not as separate events: Student understanding can be assessed through products they produce, their writing, and their interactions. If teaching is effective, tests do not need to be multiple choice and should not be stressful, frightening events for students.

Even for Bryce, Jann, and me, with our dedication to constructivism, it was still difficult to shake some ingrained traditional approaches as we created and ran Discovery.

Administrative support enabled us to incorporate these constructivist ideas into Discovery unencumbered and they became part of our daily practice in the classroom and in the field.

The existence of Discovery demonstrates that constructivism can work in practice in public schools. The testimonials of students, parents, teachers, donors, and administrators provide clarity that frequent, small-group, outdoor experiential learning programs have positive long-term impacts on students’ attitudes, relationships, academics, confidence, and their connections to the natural world. Field experiences, instructional autonomy, and providing teachers ownership over programs also increased teacher morale and prevented burn-out for educators involved in Discovery.

Program Goals and Achievements

One founding goal of Mount Logan Discovery was to embody the mission of the middle school, “To engage students in learning experiences that will foster confident, self-directed, life-long learners” (Appendix C). We believed one of the best indicators of that goal was to improve students’ reading ability, which we tracked three times per year. We also hoped students would demonstrate proficiency on end-of-level test results—because we knew those would be scrutinized. Additional gauges we looked for were students and parents reports that they (1) increased their confidence, (2) developed positive attitudes towards school, (3) created meaningful relationships with students and teachers, and (4) find joy and purpose in the learning process. Discovery was designed as a Tier II intervention for students who were not successful in traditional settings, and as way to challenge accelerated students.

We were well aware that many of our students fit the profile to eventually drop out of high school if they did not find academic success, develop positive relationships with peers, see teachers’ advocates, and gain confidence. We believed the transition into middle school was a crucial time to capture and enable our students—and to send them off to seventh grade on good footing. The outdoor component of our field programs was essential to this process. Though we may never know hard numbers of the long-term impacts of our students, it would be fair to say, based on the descriptions of parents and students in the previous pages and from past conversations, that many of our students attributed their later success and eventual graduation to their Discovery experiences.

We tracked reading data independently (with the assistance of the Literacy Coach at

the middle school) for the first 3 years of the program. Each year, our incoming sixth-grade students' reading scores, as a class, averaged between fourth grade first month and fourth grade fifth month. At the end of the first year (2008-2009) of Discovery, the class as a whole, averaged gains of 2.5 years of growth in reading ability. The second year (2009-2010) we had a larger group of students and were more selective with enrollment. The class averaged gains of 1.5 years in reading ability and the third year (2010-2011), average gains in the class were 1.6 years in reading growth. That year, we did use the preliminary results of the state end-of-year language arts testing to determine that our "underperforming students" had outgained the rest of the school by six percent. Those were substantial improvements, verified by our school Literacy Coach who performed the testing of our students. We did not flaunt these numbers, because we believed they would be perceived as a threat to our colleagues.

As I reported previously, the fourth year was a watered-down version of Discovery due to massive budget cuts that reduced the staff at the middle school by almost twenty percent (twelve positions). That was the year we added math to the program. In a grade level meeting with the language arts teachers at the beginning of the fifth year of Discovery, I distinctly recall the department chair telling all of us that the language arts scores on the state mandated tests were down significantly the previous year and that we all need to do better. I surprised everyone in the room when I interrupted and said, "Good. The scores better be down. Because we did not provide adequate support for the students who we identified and singled out for Discovery last year." The response of some teachers on the team was that we all needed to double-down on the rigor with which they used the

spelling program and the reading basal.

That last 4 years of Discovery, the only accessible data remaining are Lexile scores for all the sixth-graders in the school the fifth year of the program. From the end of September to mid-March, the rest of the sixth-graders averaged gains of 43 Lexile points. Discovery students averaged gains of 49 points. Keep in mind that upwards of 85% of our roster was made of up students who were at least a full year behind their peers in reading ability. Also, recall that with the addition of math to Discovery, the amount of time we could dedicate to reading and writing was cut by half, or more. We expected reading gains to diminish those years, and they did. I do not present any of this data as conclusive, but the numbers do provide a window into the academic success of Mount Logan Discovery. Both qualitative and quantitative data indicated we were meeting the goals of the program as outlined in this chapter thus far.

During the first 2 years of Discovery, Bryce and I urged the district to adapt consistent reading assessments at the elementary schools, the middle school, and the high school. At the time, the middle school was primarily using the time-consuming Gates-MacGinitie tests (administered with paper and pencil) to assess students reading ability. The elementary schools primarily used Dibbles. The inconsistencies made it impossible for us to gage the reading growth of our students in previous years. By the third year of Discovery, in part because of our prompting, the district adapted SRI (Scholastic Reading Inventory), an adaptive online reading assessment that was faster and easier to administer, but not necessarily more accurate. That year, we asked the literacy coach if she would test our Discovery students using both assessments, so we could get an idea of their reliability.

The results were perplexing. Though the class averages were nearly identical, the individual scores were all over the spreadsheet. Some kids bombed the SRI and aced Gates-MacGinitie, and vice versa. There was no discernable pattern to the discrepancies. This reinforced the importance of using multiple forms of assessment, including qualitative indicators, to assess student success. Since the SRI testing was digital, we did not keep hard records of data from that time forward. We also were not asked to present annual progress reports on Discovery to the school board, as we had in previous years. Had we done so, we would have had more complete records of data.

In light of evidence from multiple sources, it seems clear that when utilized effectively, outdoor experiential learning opportunities positively influence students' academic performance, overall confidence, attitude towards school, and the quality of relationships they develop with peers and teachers. These factors combined provide students with a positive overall school experience that give them a better chance at success in life. When middle school teachers are involved, outdoor-based summer programs, such as Summer Discovery, can smooth the transition between elementary school and middle school for students. Experiential learning is a powerful way to reach at risk students, but also has a tremendous outcome for students of all abilities.

One Regret and Many Recommendations for Practice

Even though we tracked classroom assessments and reading data meticulously, I regret that we did not keep better records of our data, especially now, in the context of this study. The digital data is gone. Bryce and I discussed acquiring attendance data on our

students from their elementary school years and tracking attendance data during their time in Discovery as an indicator of students' attitudes towards school. But the reality is we were overwhelmed with the day to day tasks of planning quality instruction in the classroom and in the field, writing grants, and analyzing reading data. We hoped the district would collect that type of data, and provide growth scores of students on mandatory state achievements tests, but they also, were spread thin.

Discovery existed successfully for 8 years because we did do many things right. For educators and administrators implementing new public school programs (not necessarily outdoor programs), I offer the following recommendations.

1. Present program ideas as solutions to existing problems within an organization, using data to back up claims.
2. Ground the philosophy and practices of new programs in as much established research as possible.
3. Seek feedback from other educators, administrators, parents, and students—both formally or informally.
4. Make your program as transparent as possible for administration and the families that you serve through consistent use of celebrations, websites, and social media. Use quality photographs and videos (with parental permission of course) of students engaged in learning—not goofing around.
5. Communicate program goals and progress with parents, students, administrators, and colleagues. Do not isolate yourselves from the rest of your school or organization. Listen and respond to concerns. Clarify misconceptions and seek solutions to issues that arise.
6. Seek outside funding to alleviate jealousy issues and to reduce anxiety of business managers and administration.
7. Collect and communicate qualitative and quantitative data, but do not flaunt it. Ideally, a school or district specialist should collect data independently or form a partnership with researchers at a local University.
8. Reach out to local newspapers and media outlets and invite them to report on

noteworthy approaches or activities.

9. Do not give up if things do not go well at first—keep thinking and working through kinks and problems. Solutions are easier to find when you take a step back for perspective (a day on the ski hill can be quite productive).
10. Enjoy the ride. Celebrate and acknowledge successes and be generous with sharing credit.

Despite all of these efforts, we do not believe any amount of data we might have provided would have changed the minds of the administrators who oversaw the closure of Discovery. Although Discovery was founded on centuries old ideas by the likes of Thoreau, Emerson, John Dewey, and L. L. Nunn, our practices were shaped—and continue to be shaped—by our own experiences as students and teachers and by modern researches and thinkers such as David Kolb, Linda-Darling Hammond, the Reading Next Carnegie Report, Robert Marzano, Richard DuFour, Richard Louv, Sir Ken Robinson, and Thomas Friedman. Despite all this collective knowledge, despite hundreds of qualitative comments, dozens of newspaper articles, thousands of social media photographs and teaching videos, and solid performance data, Discovery survived just 8 years. During that time, Discovery influenced hundreds of students and changed our lives as educators. On a small scale, perhaps Discovery reshaped perceptions of what is possible in public education.

If we want to humanize our schools and if we want to generate caring, creative citizens who are capable of solving problems and making our communities better, then we must change the way we evaluate schools. Shifting the focus from grade-level proficiency benchmarks to individual student growth on achievement tests would be a good start. Even better would be to include criteria such as (1) community partnerships; (2) creative

programming; (3) strength of music, art, PE, and outdoor programs; (4) attendance rates; (5) service learning; and (6) teacher, parent, and student satisfaction. Schools that utilize backward design know that assessment drives practice. As long as students and schools are evaluated exclusively on standardized test results, programs like Discovery will always remain on the fringes in public education and exist as undercurrents in the face of mainstream practices.

Components of Effective Outdoor Field Experiences

Taking what we learned during our time with summer programs and Discovery field programs, we offer the following 10 guidelines for effective field experiences.

1. Break students down into groups of 6-8 children (use volunteers to create smaller groups once you reach a destination, or only take small groups).
2. Plan and integrate experiences into classroom learning before and after.
3. Root experiences in clear academic and character education goals.
4. View traveling time as instructional time (what can students do while in the Suburban or on the bus?)
5. Have a plan, but be spontaneous when opportunities arise and offer brief bits of down time (skip a few rocks, use the dead deer to have an anatomy lesson, stop talking when a bald eagle flies overhead).
6. Provide mini writing instructional sessions and allow students time to write and reflect on what they experienced and what they learned (remember the journal is a safe zone—do not worry about spelling and punctuation perfection at this stage—you can polish writing later in the classroom).
7. Due diligence with risk management, change your plan if needed—head counts, assess hazards, proper supervision.
8. Let kids explore and learn from mistakes (a student who wears capris snowshoeing is not going to die or get hypothermia in 45 minutes, but her ankles will be cold).

9. Summarize in a circle or group-share format—allow students to complement one another or recap what they will remember.
10. Post photos of students engaged in learning experiences.

Congruency

Three strong advocates for place-based learning are David Sobel, Gregory Smith, and David Gruenewald. After completing this research and writing the narrative, I dove into their books: *Place-Based Education in the Global Age* (Smith & Gruenewald, 2007), *Place- and Community-Based Education in Schools* (Smith & Sobel, 2014), *Place-Based Education: Connecting Classrooms and Communities* (Sobel, 2004). I hoped to discover congruency between their work and Discovery. In addition to being invaluable resources for educators who care about and want to implement place-based learning, their findings, and the findings of others which they describe, align closely with what I have described on these pages. They share examples of successful place-based learning schools and programs, describe how outdoor experiences can become a catalyst for integrating content and providing purpose and application for learning. They wrote about the impacts of outdoor experiences on the overall well-being of children and adults. They give examples of academic benefits of place-based learning, and acknowledge that we must look beyond test scores when we consider the value of getting students outside.

David Sobel's (2004) *Place-Based Education* struck the strongest chord.

Another way to think about this focus on place is to understand that a 'grounded' or 'rooted' learner stands within the world, acting on its many elements, rather than standing outside looking in, acting in a large measure as an observer, which is the typical stance expected of students in schools. (p. 17)

A few pages later he asserted, “Let’s be clear that we’re convinced that good place-based education leads to increased academic achievement” (p. 31). Sobel then described two guiding principles of place-based learning: Maximize ownership through partnerships, and engage students in real-world projects in the local environment and in the community. He also listed crucial elements of successful place-based learning: Solve real problems, share commitment (through collaboration), allow students to develop articulated skills, find and express beauty, and seek community audiences. Each of these were clear principals and elements of our Discovery field programs and classroom.

Recommendations for Future Research

As I outlined in Chapter III, I believe the established research on the benefits of children and adults spending time outside in natural environments is indisputable. The thinking and research on the detrimental effects of standardized testing culture is clear. My own high school and teaching experiences serve as examples. The disconnect is getting lawmakers, education policymakers, and state, district, and local administrators to value these concepts enough to put them into practice. As I stated earlier, instructional practice on the ground level will not change significantly in our nation until we change the way we evaluate schools. With these thoughts in mind, future research will have the greatest impact that eventually influences policy and resource allocation. If states and districts invested just a fraction of the money into outdoor education programs as they do into technology and team sports, millions of students could be positively impacted.

There is a need for a national anthology of existing K-12 outdoor education

programs in public, charter, and private schools. Qualitative research should be conducted on each of these programs that describes how they operate, how they are funded, and that detail the experiences of the participants, educators, parents, and administration—similarly to this study. Stories that speak to the heart can be more persuasive than statistics. But not always. And for that reason, quantitative studies on the correlation between well-executed outdoor experiential learning activities and long-term academic achievement may help shift larger paradigms towards valuing the role of getting students outside.

Ultimately, I am left with many questions. Bryce, Jann, and I feel our Discovery model is replicable, but how do we create cultures within school districts where programs such as Discovery can thrive? Comments from parents and students certainly lead one to believe that Discovery made a difference in the drop-out rate of our students—but to what extent? And what if similar opportunities had been provided at the elementary and high school levels? Did field experiences break down racial barriers we observed at the middle school? How will Discovery experiences ultimately shape participants' adult lives? In most schools across the nation, every student has access to iPads and computers. With this in mind, how do we build more equity in public education where all schools can provide access to quality outdoor experiential learning opportunities? What would happen if states and districts poured just a fraction of the money into outdoor experiential learning as they do into team sports? How do we better train educators and administrators to look beyond the classroom? How do we change the way schools are evaluated? Many have argued that charter schools and open boundaries are the answer to educational

reform. Indeed, they may play a role, but how do you expand charter schools without segregating society along economic, religious, political, and racial lines? These are tough questions, each of which I will continue to wrestle with in the years to come.

Limitations

Though replicating Mount Logan Discovery in its entirety would be difficult, it would not be unreasonable. At minimum, various aspects of Discovery are applicable in a variety of public education settings. The creation of Discovery was possible because the right combination of administrators and teachers converged at a crucial time and place. As with all endeavors that push boundaries, successive attempts are generally easier until the unthinkable eventually becomes routine. One example to consider is the first ascent of Yosemite's El Capitan, which took Warren Harding and crew 45 days of relentless climbing to complete in 1958. Single day ascents of the route are now common and in 2017, Alex Honnold climbed the route without a rope in less than four hours. I hope that our struggle to create and sustain Discovery will make it easier for others to follow.

In fairness, I must disclose that I did not interview the handful colleagues and administrators who were critics of Discovery. Throughout the narrative, I made a concerted effort to represent their criticisms in an honest and objective manor, basing descriptions and statements on print sources and interviews whenever possible. To summarize, a few colleagues felt we provided privileges to students they did not deserve, that we took resources from the rest of the school, that we were not teaching the curriculum standards, and that we were detached from our fellow educators. I described

how we responded to these perceptions as they arose in the narrative, but ultimately readers will forge their own interpretations. When I wrote about the closure of Discovery, I felt interviewing various administrators involved in the decision would place them in an awkward circumstance. I was also confident that the quotes I obtained from various newspaper articles were adequate to describe their rationale and viewpoints. I do not believe I could find a parent or student who had an overall negative experience with the program.

Reciprocating with the Earth

One spring afternoon, returning from a field experience on the Logan River trail, I stopped the Suburban in the middle school parking lot and seven students with muddy shoes emerged from the vehicle, laughing. The ESL Discovery facilitator, Bonnie, approached me to ask a question about the canoes. She resembled Amelia Earhart, with her lean build, bright eyes, and clipped hair—though Bonnie’s hair was bright white. “I know what you are doing,” she said with her broad grin, pointing a finger at my chest, “You are saving the earth.” I returned the smile and said, “I think it is the other way around. The earth is saving us.”

What I meant with my response is that I understand the benefits of outdoor experiential learning on physical and psychological health, and on academic and interpersonal levels—both in my personal life and in the lives of my students. But Bonnie was right. There is a symbiotic relationship in play. Throughout my entire journey as an educator and river guide, a silent, persistent motivation drives me. If no one is connected to

the landscape, then no one will care. If this electronic generation grows up completely detached from the natural world, there will be no advocates, no stewards, for the wild country and that is a future I do not wish to live within.

I have always looked beyond the curriculum standards to the big ideas that matter on a global scale. When I taught fifth-grade, it was common practice for teachers to require their students to memorize the capitals of the fifty states. I once heard Click and Clack, on Car Talk radio, joke, “When is the last time someone stuck a gun in your ribs and said, ‘Tell me the capital of Nevada, or I’ll shoot!’” They were right. Rather than having my students memorize the capitals, I focused instead on historic stories of the capitals and the geography that influenced the locations of where the cities were established. When I first moved to the middle school to teach science, astronomy did not excite me—because I had learned astronomy in the traditional, memorize the gee-whiz facts approach. It was uninteresting. I thought hard about the real purpose of the astronomy curriculum. It does not really matter how many moons Saturn has, I thought, but what does matter, is what we can learn about the origins of life by researching the conditions that exist on some of the moons of Saturn.

I eventually concluded that astronomy is important to understand because it puts our puny and vulnerable planet earth, in a universal context. If we consume the earth’s resources, we can’t simply find another planet to live on, as science fiction movies imply. For this reason, it is important to understand the harsh conditions of the other planets in our solar system and the vast distances in space. Students realize idea of flying from galaxy to galaxy is ludicrous when they learn that it would take 100,000 years just to cross the Milky

Way Galaxy in the Millennium Falcon at the speed of light (670 million miles per hour)—a speed that we can't even come anywhere near achieving (the fastest space craft developed yet, the New Horizons probe, currently approaching the Kuiper belt beyond Pluto, travels an estimated 36,000 miles per hour).

To give students some practical examples, I ended each school year by sharing two stories with my classes about South Pacific Islands, and the metaphors they offer. In 1789, British sailors aboard the HMS Bounty mutinied and fled, with their new Tahitian brides and a handful of Tahitian men, to settle the previously uncharted Pitcairn Island. Upon arriving, they sunk the Bounty to avoid detection by the British Navy and proceeded to live on the island in isolation. All was well until the nine British pirates decided they would divide up the island into property shares but were going to exclude the six Tahitian men and eleven Tahitian women from parcel ownership. Fearing they would live the rest of their lives as second-class citizens, a bloody battle ensued that resulted in virtually all the men killing each other.

The second story is about the first European ship that dropped anchor at Easter Island in 1722. Dutch sailors found an oddly deforested South Pacific island with a small population surviving as cannibals. Some archaeologists claim that the island previously supported a thriving society—that quarried, carved, transported, and erected the iconic—and massive—elongated head statues called Moai. The belief is that the inhabitants exceeded the islands' carrying capacity and with the natural resources depleted, the population crashed.

Pitcairn Island and Easter Island become metaphors for the earth—a miniscule and

isolated island in space. My students and I would discuss the possibility that the greatest threat to humanity is not natural disasters, the eventual disappearance of earth's magnetic field, or catastrophic asteroids that many like to fear. What we learn from the South Pacific is that the greatest threats to life on earth are the greed and pride of humanity. Our survival is contingent on learning to embrace and value ethnic and cultural diversity, relieving economic disparity, and living sustainably. In this way, astronomy becomes a conduit for teaching students to value cultural and ethnic diversity and to care about sustaining Earth's resources. These are ideas that matter. In *Place Based Education in the Global Age*, Gruenewald and Smith (2008), begin the book by stating:

“We have long been concerned about the division between environmental educators and those who direct their attention to matters of social justice and equity. We are convinced that human welfare will depend on the ability to reconcile these two domains in the coming decades.... (p. vii)

Concluding Thought

A few years ago, my parents visited their grandchildren in my home. In the evening, after my little ones were sound asleep, we sat around the table reminiscing. Somehow my high school shenanigans surfaced in the conversation and my mother, in jest, commented about the irony of how someone who sluffed school so frequently as a child, would become an educator.

“Mom,” I said, as the laughter faded, “All that time you thought I was a delinquent juvenile, but I was laying the foundation for a career. That's what I do for a living—I take kids out of class and into the mountains.”

Every May, in Cache Valley, arrowleaf balsamroot buds open, revealing a heart-



Photo 24. Students paddle down the Little Bear River and learn to care about the natural world in the process.

sized blossom that resembles a sunflower. The foothills are ablaze in yellow. One of my favorite field experiences each year, is visiting the mountains during this time. After teaching a writing mini-lesson one May, my students dispersed among the wildflowers and sat on the spring-green mat of grass shoots and stork's bills. Their pens and pencils flew across their journals, filling blank pages with their thoughts and descriptions.

From our vantage point, on the highest of the old Lake Bonneville shorelines, we looked out over the entire valley. I began to pick out the various schools below, naming them off silently in my head. Inside of those schools, thousands of students sat at their desks in cinderblock rooms, learning various subjects—in schools where recess, art, music, social studies, and even science, have been trimmed back to improve achievement



Photo 25. Mount Logan Discovery sixth-grade students write in the foothills, overlooking Cache Valley during the height of the arrowleaf balsamroot bloom.

scores. The best way to prepare students for life is not to isolate them from the world, but to immerse them within it. A distant meadowlark sung out, high and bold, into the morning. My attention shifted back to foothills, to this wide-open world before us, and to eight happy students writing earnestly, surrounded by a magical sea of yellow blossoms.

One student wrote:

Chickadees, robins, and a mourning dove chirp and sing as they flutter among the small brush and sumac, the tops of the branches snapped off by deer. Their fresh tracks linger in the earth, while a crisp, newer being thrives nearby. This young, new beginning is the first flower of the spring in the majestic mountain range of the Bear River. The sun's warmth beats down upon my face, drawing me away from the group in awe at the forever lasting beauty. I love where I am right now, so far from the harm and ugliness of the cities. It seems as if all the world is paused. The unnatural beings and artificial joy is shut out, and the world is how it once was, calm, peaceful, and everlasting. (Mount Logan Discovery Facebook, 2013)

Field experiences matter. They make learning authentic, give purpose to academic

standards, foster meaningful relationships, allow students to make important connections to the land and community, and permit students and teachers to find joy in the process—and if there is not joy in the learning process, we must seriously ask ourselves: “What are we doing to this generation of children?”

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APPENDICES

Appendix A
Informed Consent



Page 1 of 3
 Protocol #
 IRB Approval Date:
 Consent Document Expires:
 IRB Password Protected per IRB X

v.8.3; May2017

Informed Consent

Undercurrents: The Life Cycle of an Outdoor Experiential Learning Program in a Mainstream Public Middle School

Introduction

You are invited to participate in a research study conducted by Dr. James Dorward, a Professor in the Emma Eccles Jones College of Education and Human Services at Utah State University, and Eric Newell, a PhD graduate student in the Department of Teacher Education and Leadership. The purpose of this study is to describe the lived experiences of the researcher that led to the creation, design, and implementation of Mount Logan Discovery—a sixth grade integrated outdoor experiential learning program at Mount Logan Middle School that operated from 2008 through 2016.

This form includes detailed information on the research to help you decide whether to participate in this research. Please read it carefully and ask any questions you have before you agree to participate.

Procedures

Your participation will involve a conversational interview that will not last more than one hour and will be conducted at the time and location of your choosing. Topics will include your perspectives on your experiences with Mount Logan Discovery. If you agree to participate, the researchers will record the interview for future analysis. The recording will be destroyed within three years. Pseudonyms will be used to conceal your identity unless you choose to be identified by name. I anticipate that a dozen people will participate in this research study.

Risks

This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. Though I am not asking for personal or confidential information, if you reveal any such information there is a small risk that others may be able to connect the circumstantial dots to identify who you are—though I will do all in my power to make such references ambiguous. In order to minimize those risks and discomforts, the researchers will not record actual names of interview participants, unless they state they wish to be identified. If you have a bad research-related experience or are injured in any way during your participation, please contact the Dr. James Dorward, principal investigator of this study right away at (435) 797-1471 or via email jim.dorward@usu.edu.

Benefits

Though there will be no direct benefit to you, this study seeks to contribute to the body of knowledge that is already present on outdoor experiential learning programs and to challenge the current thinking about how to best serve public school students. The greatest potential for impact from this study is in praxis. When combined with the philosophy of thought and educational research Mount Logan Discovery was built upon, the qualitative aspects of the overall program may form a strong case for other schools—public, charter, or private—to employ aspects of Mount Logan Discovery to better serve their students. This is the hope, and the reason for undertaking this study.

Confidentiality

Unless you state that you wish to be identified, the researchers will make every effort to ensure that the information you provide as part of this study remains confidential. Participants who wish to remain confidential will not have names revealed in any publications, presentations, or reports resulting from this research study.



Page 2 of 3
 Protocol #
 IRB Approval Date:
 Consent Document Expires:
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v.8.3; May2017

There is a small risk that others may be able to connect the circumstantial dots to identify who you are—though I will do all in my power to make such references ambiguous. My goal is to protect identities of students and parents through the use of pseudonyms. With more than 500 students enrolled in Mount Logan Discovery in the past, this risk is minimized. I will not record actual names of students or parents in my data collection.

I will collect your information through audio recorded interviews, email, or personal messaging, depending on your preference. If electronic forms of communication are used, original messages will be copied to a file and deleted immediately. This information will then be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage system available to the researchers through USU. This information will be kept for three years after the study is complete, and then it will be destroyed.

It is unlikely, but possible, that others (Utah State University, or state or federal officials) may require us to share the information you give us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so. If the researchers learn that you are abusing/neglecting/going to engage in self harm/intend to harm another, state law requires that the researchers report this behavior/intention to the authorities.

If you choose to respond to interview questions via electronic methods the following will apply. The research team works to ensure confidentiality to the degree permitted by technology. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online. However, your participation through electronic means involves risks similar to a person's everyday use of the Internet.

Voluntary Participation, Withdrawal, and Costs

Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by informing the researchers that you wish to withdraw. If you choose to withdraw after we have already started the interview question we will destroy the record of the proceeding conversation, or keep it, according to your wishes. The researchers may choose to terminate your participation in this research study if he feels your participation is not useful to the study or is causing harm. There is no direct cost to you as a participant, other than your travel to the interview destination.

Compensation

For your participation in this research study, you will receive no compensation.

Findings & Future Participation

If the researchers learn anything new during the course of this research study that might affect your willingness to continue participation, you will be contacted about those findings. This might include changes in procedures, changes in the risks or benefits of participation, or any new alternatives to participation that the researchers learn about.

Once the research study is complete, the researchers will email you the findings of the study. In order to do this, the researchers must have your contact information. If you would like them to keep your contact information, please initial here: _____. This information will be entered into a file stored on box.com that is completely separated from anything to do with this research study and maintained for three years. You can contact the Principal Investigator at any time to be removed from this list.

IRB Review

The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the



Page 3 of 3
Protocol #
IRB Approval Date:
Consent Document Expires:
IRB Password Protected per IRB X

v.8.3; May2017

Principal Investigator at (435) 797-1471 or jim.dorward@usu.edu. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

Dr. Jim Dorward

Eric Newell

Dr. James Dorward
Principal Investigator
(435) 797-1471 jim.dorward@usu.edu

Eric Newell
Student Investigator
801.520-3607 eric.newell@usu.edu

Informed Consent

By signing below, you agree to participate in this study. You indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your participation in the study if you choose to do so. Please be sure to retain a copy of this form for your records.

Participant's Signature

Participant's Name, Printed

Date

Appendix B

USU IRB Approval Letter



Institutional Review Board

USU Assurance: FWA#00003308

Exemption #2

Certificate of Exemption



FROM:

Melanie Domenech Rodriguez, IRB Chair

Nicole Vouvalis, IRB Administrator

To: James Dorward, Eric Newell
 Date: August 29, 2017
 Protocol #: 6944
 Title: Undercurrents: The Life Cycle Of An Outdoor Experiential Learning Program In A Mainstream Public Middle School

The Institutional Review Board has determined that the above-referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2:

Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through the identifiers linked to the subjects; and (b) any disclosure of human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

This exemption is valid for three years from the date of this correspondence, after which the study will be closed. If the research will extend beyond three years, it is your responsibility as the Principal Investigator to notify the IRB before the study's expiration date and submit a new application to continue the research. Research activities that continue beyond the expiration date without new certification of exempt status will be in violation of those federal guidelines which permit the exempt status.

As part of the IRB's quality assurance procedures, this research may be randomly selected for continuing review during the three year period of exemption. If so, you will receive a request for completion of a Protocol Status Report during the month of the anniversary date of this certification.

In all cases, it is your responsibility to notify the IRB prior to making any changes to the study by submitting an Amendment/Modification request. This will document whether or not the study still meets the requirements for exempt status under federal regulations.

Upon receipt of this memo, you may begin your research. If you have questions, please call the IRB office at (435) 797-1821 or email to irb@usu.edu.

The IRB wishes you success with your research.

Appendix C

USU IRB Interview Questions

INTERVIEW QUESTIONS

If necessary, conversational interviews will be conducted in an open, dialogue format designed to engage participants in a comfortable, natural conversation.

Pool of Possible Questions for Students:

- 1) Did you participate in Summer Discovery: River Rats? How would you describe your experience? How would you say it influenced your transition to the middle school? Ask for elaboration if needed.
- 2) How would you describe your overall experience as a participant in Mount Logan Discovery?
- 3) What stands out from that experience when compared to your other years in school? Ask for elaboration if needed.
- 4) What role would you say the field programs played in your overall experience with Mount Logan Discovery?
- 5) Did the field experiences influence the friendships you formed? In what ways?
- 6) Would you say your attitude towards school changed as a result of your experiences with Mount Logan Discovery? In what ways? Why?
- 7) How did Mount Logan Discovery influence your academic progress? Short term and long term?
- 8) How would you describe the way writing was taught in Mount Logan Discovery? In what ways (if any) did the experience influence your interest and competence in writing?
- 9) How would you describe the overall strengths of Mount Logan Discovery? How would you describe the overall weaknesses of Mount Logan Discovery?
- 10) If you could have changed one thing about Discovery, what would it be?
- 11) Did you feel like Discovery had a sense of culture, identity or “togetherness” that was different from other classes you’ve been part of? In what ways?
- 12) Is there anything else you’d like to say about Discovery?
- 13) Do you have any questions for me?

Pool of Possible Questions for Parents:

- 1) Did your student participate in Summer Discovery: River Rats? If so, did you go along as a chaperone? How would you describe your experience? How would you say it influenced your child's transition to the middle school? Ask for elaboration.
- 2) How would you describe your student's overall experience in Mount Logan Discovery?
- 3) What stands out as different from that experience for your student when compared to his or her other years in school? Ask for elaboration if needed.
- 4) What role would you say the field programs played in the overall experience of your son/daughter in Mount Logan Discovery?
- 5) Do you feel the field experiences influenced the friendships your student formed at school? In what ways?
- 6) In what ways (if any) do you feel your student's attitude towards school changed as a result of participating in Mount Logan Discovery? Why?
- 7) How did Mount Logan Discovery influence your student's academic progress? Short term and long term?
- 8) What kind of influence would you say Mount Logan Discovery had on your student as a writer?
- 9) How would you describe the overall strengths of Mount Logan Discovery? How would you describe the overall weaknesses of Mount Logan Discovery?
- 10) If you could have changed one thing about Discovery, what would it be?
- 11) Did you feel Discovery had a sense of culture, identity or "togetherness" that was different from other classes your student attended? In what ways? What would you say are the reasons behind this?
- 12) Is there anything else you'd like to say about Discovery?
- 13) Do you have any questions for me?

Pool of Possible Questions for Teachers:

- 1) What aspects of Summer Discovery do you feel were the most important? How crucial do you think the summer program was to student success?
- 2) How would you describe your overall experience as a teacher in Mount Logan Discovery?
- 3) What stands out as different from that experience when compared to your other years teaching? Ask for elaboration if needed.
- 4) What role would you say the field programs played in the overall experience with Mount Logan Discovery?
- 5) In what ways (if any) do you feel the field experiences influenced the way students interacted with other students?
- 6) In what ways do you feel students' attitude towards school changed as a result of participating in Mount Logan Discovery? Why?
- 7) How did Mount Logan Discovery influence students' academic progress? Short term and long term?
- 8) How would you describe the impact of the writing instruction on Discovery students?
- 9) If you could have changed one thing about Discovery, what would it be?
- 10) Did you feel Discovery had a sense of culture, identity or "togetherness" that was different from other classes you've taught? In what ways? What would you say are the reasons behind this?
- 11) Do you have any questions for me?

Pool of Possible Questions for Administrators

- 1) What aspects of Summer Discovery do you feel were the most important? How crucial do you think the summer program was to student success?
- 2) How would you describe your overall experience with Mount Logan Discovery as an administrator?
- 3) What stood out as different from Discovery when compared to your other experiences with programs in schools?

- 4) What role would you say the field programs played in the overall experience of students involved in Mount Logan Discovery?
- 5) Do you feel the field experiences influenced the way students interact with other students? In what ways?
- 6) In what ways do you feel students' attitude towards school changed as a result of participating in Mount Logan Discovery? Why?
- 7) How did Mount Logan Discovery influence students' academic progress? Short term and long term?
- 8) How would you describe the overall strengths of Mount Logan Discovery? How would you describe the overall weaknesses of Mount Logan Discovery?
- 9) If you could have changed one thing about Discovery, what would it be?
- 10) As an administrator, why did you support Discovery? What reservations did you have?
- 11) Is there anything else you'd like to say about Discovery?
- 12) Do you have any questions for me?

Questions for Donors

- 1) What factors contributed to your desire to commit resources to fund Mount Logan Discovery? Follow up discussion to elaborate.

Appendix C
Discovery Proposal

~ Discovery ~

A proposal for a sixth-grade transitional program at Mount Logan Middle School

Bryce Passey and Eric Newell
January 17, 2008



“The trouble with all educational research is that it based on the idea that a classroom with four walls is the ideal setting for students to learn.” --Bryce Passey

MOUNT LOGAN MIDDLE SCHOOL



.... Creating Lifelong Learners

875 NORTH 200 EAST
LOGAN, UTAH 84321

Rationale

The mission statement of Mount Logan Middle School is: “To engage students in learning experiences that will foster confident, self-directed, lifelong learners.” Administration, faculty, and staff have worked hard over the years to accomplish this mission and have made significant measurable progress. We must continue our search for alternative teaching methods that will meet the needs of those who are not currently engaged in the learning process. The following proposal is designed for sixth-graders who are not successful in traditional classrooms and who struggle with the transition from elementary school to middle school.

Needs Assessment

Testing Data

- ✓ According to Cognos data, 27% of sixth-grade students who have been in Logan City Schools for third, fourth and fifth-grade have scored a one or two on end of level tests in at least one core subject area. These are not transient students, but students who have been in our elementary schools for at least three years. These struggling learners can easily be identified upon entering Mount Logan Middle School (see Document 1).
- ✓ Not coincidentally, 13% of graduating seniors from Logan High School and 25% of Utah seniors are not able to pass the UBSCT test (this does not include students who have dropped out). We do not think we need to hire an independent analysis team to find there is a high correlation between those entering Middle School as struggling learners and are still unable to pass a basic skills test six years later (see Document 2).
- ✓ Additionally 45% of our current sixth-graders are reading below grade level according to the latest Gates MacGinitie test results (Document 3). 36% are reading two or more years below grade level. This data does not include severe special education students or ESL “A” students.

Additional Concerns

- ✓ Student body at MLMS is double what it was initially intended (436 sixth-graders) and increased by forty students for this school year (see Document 4).
2006-2007 sixth-grade = 396 ~ 2007-2008 sixth-grade = 436
- ✓ Total enrollment at MLMS increased by 63 students this year and will continue to grow (two-thirds of school growth occurred in sixth-grade).
2006-2007 enrollment = 1,231 ~ 2007-2008 enrollment = 1,294
- ✓ Team meetings are occupied with talk about struggling students and teachers are frustrated with how to help them.
- ✓ Growing demand for “accelerated learner” program.

Track Record

The idea of Discovery blossomed from our literacy-based summer learning model “Bringing Literature to Life” that has proven successful over the past seven summers (see Document 5). The idea behind the model is that kids will connect with literature if they simultaneously participate in a series of carefully planned experiences that relate directly to the story they are reading. They get excited, they want to read the next page or the next chapter, and they want to express their thoughts and opinions about the book. Journals are provided for each student and we use their reading momentum as a stepping-stone to get them to write. Learning comes alive. During our summer learning programs, we have worked with both ends of the academic spectrum and have been able to boost kids who struggle and challenge kids who excel. We see reluctant learners in our regular classes and have asked: If we can achieve measurable gains with these students during two weeks in our summer program, what would be possible if we could implement this model over a nine-month school year?

Proposal

Forty-five incoming sixth-grade students who are at risk academically will be identified and enrolled, with parent consent, in an alternative educational experience called Discovery. Selection for enrollment will be based upon fifth-grade teachers’ recommendations, reading comprehension and fluency test results, and COGNOS data. Approximately twenty students will be enrolled based on parent requests, who are identified as accelerated learners, that we can utilize as peer tutors. Fifteen slots will remain open for students who will be identified by sixth-grade teams during the first weeks of sixth-grade and referred to Discovery. This brings the number of students served through Discovery to a total of eighty, which will be split into two groups of forty. The first group will be enrolled for three class periods (RAP through fourth hour) and the second group will be enrolled for three class periods (fifth through seventh hour) in the afternoon.

Core subjects of language arts, social studies and science will be integrated. As certified elementary teachers, we are “highly qualified” to teach these subjects and already strive to integrate topics through natural segues. As current science teachers, we are well acquainted with the curriculum we propose to teach. With this teaming model, one of us would regularly slip away with six to twelve students for half day field opportunities while the other would teach the remaining students in a classroom setting. This would eliminate the need to pay for a substitute, would not require the expense or use of a bus for transportation, and our students would not miss any of their other regularly scheduled classes at Mount Logan Middle School. These mini field experiences would occur on an ongoing basis enriching learning across the curriculum.

We have spoken with Russ Akina, Director of Logan City Parks and Recreation about a partnership with Willow Park Zoo. The educational facility there is frequently vacant and we would often use it as our destination for our half-day field excursions, engaging students in a service learning component. The site provides easy access to

Willow Park, the zoo itself, as well as the Logan River walkway. We hope to initiate similar relationships with Hardware Ranch, The American West Heritage Center, Stokes Nature Center, and other educational sites in the valley.

The current teaming organization at Mount Logan Middle School will enable us to easily coordinate curriculum and success strategies with other teachers whose courses our students will be enrolled on during other times of the day. Continued collaboration with our colleagues will be a key component to the success of our students.

At the beginning of the school year we will meet with Discovery students and their parents to discuss the unique nature of the program. We will explain the experiential-based nature of Discovery and acquire permission for off-campus activities as well as contact information and special needs of students. Parents will be informed of dates and destinations of field excursions via notes and an online calendar we will regularly maintain. This website will also notify parents of assignments and will provide links to web sites that offer more detail on curriculum standards and ideas taught in class.

If the student, their parent(s), or educators involved feel Discovery is not a good fit for an individual, we will hold a meeting with the student, parents, other educators who would be impacted, and administration to determine the best recommendation for the student. A number of factors will play into the outcome of the decision for a student to exit prematurely from the program, which may include; attitudes, treatment of other students, personal conduct in the classroom and in the field, academic progress, and citizenship scores.

Research

The Carnegie report, *Reading Next*, lists fifteen key elements of effective literacy instruction (see Document 7). Our summer programs incorporate eight of the nine “Instructional Improvements” listed. With Discovery, we are confident that we could implement all nine of those research-backed components. Furthermore, Discovery will fulfill in whole, or part, a piece of all six “Infrastructure Improvements” suggested in the report. Perhaps the most significant of which is “Extended Time for Literacy.” Quoting directly from page twenty of *Reading Next*:

None of the above-mentioned elements are likely to affect much change if infrastructure is limited to thirty or forty-five minutes per day. The panel strongly argued the need for two to four hours of literacy-connected learning daily. This time is to be spent with texts and a focus on reading and writing effectively. Although some of this time should be spent with a language arts teacher, instruction in science, history, and other subject areas qualifies as fulfilling the requirements of this element if the instruction is text-centered and informed by instructional principals designed to convey content and also to practice and improve literacy skills.

The essence of Discovery will be integrating content areas into a meaningful whole with a consistent focus on literacy.

As educators, we have had the most success when we view the curriculum as a

means rather than an end. When we accomplish this, learning becomes authentic. Discovery instruction will be based on a constructivist approach—the idea that we learn best by constructing meaning from experiences. Pedagogy will also be influenced by the following research:

Building Background Knowledge for Academic Achievement

Robert Marzano

Classroom Instruction That Works

Robert Marzano, Deb Pickering

Integrating Differentiated Instruction + Understanding by Design

Carol Ann Tomlinson and Jay McTighe

Results Now

Mike Schmoker

Multiple Intelligences in the Classroom

Thomas Armstrong

The Multiple Intelligences of Reading and Writing

Thomas Armstrong

New Positions

We currently have approximately 440 sixth-grade students in our core classes. This works out to an average class size of twenty-five students. The class loads of the sixth-grade core subjects are approaching maximum capacity. New positions will have to be created in the next couple years based on projected growth rates. For example, we currently have eighteen sections in each sixth-grade core subject, which works out perfectly for three educators to each teach six classes. Enrollment increases will create a hiring and scheduling dilemma for administrators when adding new sections becomes necessary.

Two new sixth-grade science teachers will need to be hired in our places, to work with Casandra Housley. Discovery will take eighty students out of the mainstream class load, reducing average class size in all sixth-grade social studies, language, and science courses to twenty students and preventing the looming scheduling dilemma from occurring. With the difficult transition into a large middle school this class size reduction in core areas would be a win-win for everyone, allowing other teachers to more easily challenge accelerated learners. We would appreciate assurance that if Discovery were to be discontinued after the first year, that we would be able to return to our current positions.

Refocus our Summer Learning Program

Currently we run two sessions of our summer learning program, River Rats. Each session lasts two weeks. We'd like to morph our summer program so it is available only to incoming sixth-graders with priority given to those who would be enrolled in the Discovery. If needed, we would shift from two two-week sessions to three or four week-long sessions.

Data and Analysis

Prior to enrollment in Discovery, all data that was used to determine a student's placement will be recorded and collected. Students will also be tested for reading fluency and comprehension and they will be required to complete a writing sample to round out our collection of baseline data.

Students will be retested for fluency and comprehension each semester and at the end of the year. Writing samples will be scored throughout the year, using the Six Traits rubric that is standard at Mount Logan Middle School. End of year data will be compared to baseline data to determine the effectiveness of Discovery.

Possible Funding Sources

- ✓ Striding Readers money for 2008-2009
- ✓ EETT grant for classroom?
- ✓ Community Donors (meet with community council)
- ✓ ECCLES (writing is considered an art)
- ✓ No Child Left Inside money?
- ✓ GEAR UP grant
- ✓ NEH.gov

Facilities

The physical setting is vital to ensuring our students feel they are part of one class—not Mr. Newell's class or Mr. Passey's class. A single large classroom facility would be preferable. Tables, similar to what are already in use in our science classrooms, would best facilitate cooperative and Kagan learning structures we plan to implement. We have identified several options for housing that are listed below.

Option A: Move Brent Tubbs into his computer area just as Dave Anderson was moved this year. Remove the non-bearing wall between those two small classrooms. Brent would have his classroom outfitted similarly to Dave Anderson's and we would have use of the remaining large classroom. Dave Anderson has two prep times and Brent Tubbs has one. By locating us adjacently to the Tech rooms, we could and would utilize their technology resources during their prep times, when their computers are otherwise idle.

Option B: Portables. This is the least desirable option—but we are willing.

Technology

Because technology is a key part of how we ask students to apply and demonstrate their knowledge, having the appropriate equipment is a key to the success of the Discovery. Preferably we would have full access to the portable Macintosh lab currently being used by Dave Anderson until his student desktop computers arrive. Other specific equipment, such as a Smartboard, projector, and sound system, are key components to our classroom setup. We have received eMints training and have both received our Technology Endorsements.

Transportation

We plan to use district minivans for our small group local travel which will save \$20.00 per hour plus \$1.50 per mile for school buses.

Questions and Answers

The following questions were asked by various administrators and educators as we have sought input for this proposal.

Will Discovery replace the behavior unit at Mount Logan Middle School?

No, Discovery is not intended to be a behavior remediation program. We are keenly aware of the fact that “Those who are rowing the boat are seldom the ones rocking the boat.” If successful however, we will engage students that may otherwise become behavior problems, thus reducing the number of students who are referred to the behavior unit.

If successful, is Discovery replicable?

Yes, the model we will use and the idea of Discovery could be replicated. But it would require finding teachers who are, to use a horseshoes analogy, “dead ringers” for the program. In the summer, under the Bringing Literature to Life model, other educators offer summer courses such as The Family Farm, Machines that Changed Our World, Say it with Puppets, and Mud, Megabytes, and Mayhem. Each of these courses are expressions of various teachers’ talents and passions and they have achieved similar academic gains to River Rats, utilizing art, sewing, acting, gardening, and mechanics as themes. The outdoor component of Discovery is the catalyst we use to reach students. We believe a component of the success of Discovery will be because our teaching styles and philosophies are highly congruent.

Replicating this model for seventh and eighth grades would be more challenging—though not impossible—due to stricter requirements for “highly qualified” teachers in every content area. As we mentioned earlier, sixth-grade is still considered elementary, even though it is housed in the middle school.

Is this program rewarding bad kids?

No. The transition into middle school gives students a clean slate and a fresh start. The main goal of Discovery is to identify students who are at academically risk as they leave fifth-grade and provide a setting where they will be nurtured and engaged allowing them to discover the taste of success. We hope to catch them before they have a chance to be branded as “bad kids.” Additionally, the group of accelerated learners will have the opportunity to participate in the program, modeling success.

As a school district, investing resources in our academically at risk students is the best service we can provide the community.

Should not all kids have this opportunity?

It would be ideal, if all students were able to have a more engaging and personal learning experience at Mount Logan Middle School. Indeed, the many, varied ways faculty and staff have already implemented programs that create a more intimate environment at Mount Logan Middle School contributed to our selection as a School to Watch. Discovery is one more step in our evolution as a school to reach all learners. If successful, and if other teachers and administration felt there is a need, Discovery could be expanded to encompass all sixth-grade students and beyond. Several sixth-grade cluster teachers (and others, certainly) have insightful and experience-based ideas for schedule changes that could enable the types of opportunities Discovery will offer to all sixth-graders.

Will students who are participating in Discovery be excluded from other learning opportunities such as band, orchestra, special education services, and ESL?

Absolutely not. Students who participate in Discovery will have the same options for course enrollment as all other students. The only difference is their core subjects of science, social studies and language arts will be combined into a three-period block.

How will ethnic background and gender play into selection?

We are well aware of the diversity at Mount Logan Middle School. Students will not be excluded or selected based on their ethnicity or gender. We will house students that will benefit the most from participating in Discovery.

Document 1**Sixth-grade Cognos data for 2006-2007 school year**

Total 6th grade students on Cognos	351	(100%)
Number of students who have scored 1 or 2 in Language Arts or Math	86	(25%)
LEP students who have scored 1 or 2 in Language Arts or Math	28	(8%)
Spec. Ed. students who have scored 1 or 2 in Language Arts or Math	14	(4%)
LEP and Spec. Ed. students who have scored 1 or 2 in Language Arts or Math	10	(4%)
Students without classification who have scored 1 or 2 in Language Arts or Math	34	(10%)
Student 3 or more years in Logan City Schools	278	(79%)
Number of students who have scored 1 or 2 In Language Arts or Math	76	(27%)
LEP students who have scored 1 or 2 in Language Arts or Math	23	(8%)
Spec. Ed. students who have scored 1 or 2 in Language Arts or Math	10	(4%)
LEP and Spec. Ed. students who have scored 1 or 2 in Language Arts or Math	10	(4%)
Students without classification who have scored 1 or 2 in Language Arts or Math	29	(10%)

Document 2**Highlights of Newspaper Articles Reporting UBSCT Results****More than 9,500 - quarter of all seniors - fail high school exit exam**

By Nicole Stricker /The Salt lake Tribune June 6, 2007

More than a quarter of this year's high school seniors failed Utah's high school exit exam, meaning they received conditional diplomas, if they graduated at all.

More than 9,500 students failed to pass at least one portion of the Utah Basic Skills Competency Test, according to data released Tuesday by the Utah State Office of Education. Last year 10 percent of students failed the UBSCT.

Of 36,545 seniors enrolled in October, 22.4 percent did not pass the math test, 20 percent failed the writing portion and 15.8 percent missed the mark on reading. Overall, 9,512 students - or 26 percent - failed to pass at least one section, meaning they failed the test.

Critics say some students simply do not test well. A student in the Jordan School District took four years of math classes and five stabs at UBSCT, but failed it by one point this year.

Local UBSCT failure lower than state

By Emilie Wheeler Herald Journal June 12, 2007

Days after a state report indicated that a quarter of 2006-07 Utah seniors did not pass an exit exam, valley educators say that percentage is much lower for local kids who stay in school their senior year. In Logan City School District, 13 percent of students who completed their senior year failed at least one section of the Utah Basic Skills Competency Test. Students failing at least one section of the test after three attempts receive a diploma with a did-not-pass note on it.

Document 3

Gates MacGinitie Test Results

Gates MacGinitie Results Summary, Fall, 2007																
Grade	Vocabulary					Comprehension					Total					
	Total Assessed	Two or More Years Below	One Year Below	Grade Level	One Year Above	Two or More Years Below	One Year Below	Grade Level	One Year Above	Two or More Years Below	One Year Below	Grade Level	One Year Above	Two or More Years Below	One Year Below	Grade Level
6	450	69	85	49	47	51	55	45	39	197	450	53	66	63	61	168
	Total%	15.3%	18.9%	10.9%	10.4%	11.3%	12.2%	10%	8.7%	43.8%	Total%	11.8%	14.7%	14.4%	13.6%	37.2%
7	402	63	38	62	42	32	66	33	39	168	402	66	66	53	42	160
	Total%	15.7%	9.5%	15.4%	10.4%	8%	16.6%	8.3%	9.8%	42.2%	Total%	16.7%	34.8%	13.4%	10.6%	40.4%
8	432	89	53	30	37	32	98	43	15	205	432	99	29	39	24	195
	Total%	20.6%	12.3%	6.9%	8.6%	7.5%	23%	10.1%	3.8%	49.1%	Total%	23.2%	39.2%	6.8%	9.2%	46%
Total	1284	221	176	141	126	115	219	121	94	574	1272	218	139	147	142	524
	Total%	17.2%	13.7%	11%	9.8%	9%	17.2%	9.5%	7.4%	45.1%	Total%	17.1%	10.9%	11.6%	11.2%	41.2%
6	450	203	247	247	247	281	169	281	281	281	450	184	266	266	266	266
	Total%	45%	54.9%	54.9%	54.9%	62.4%	37.6%	62.4%	62.4%	62.4%	Total%	40.9%	59.1%	59.1%	59.1%	59.1%
7	402	163	239	239	239	240	158	240	240	240	402	153	243	243	243	243
	Total%	40.5%	59.5%	59.5%	59.5%	60.3%	39.3%	60.3%	60.3%	60.3%	Total%	38.6%	61.4%	61.4%	61.4%	61.4%
8	432	172	260	260	260	268	158	268	268	268	432	167	259	259	259	259
	Total%	39.8%	60.2%	60.2%	60.2%	62.9%	37.1%	62.9%	62.9%	62.9%	Total%	39.2%	60.8%	60.8%	60.8%	60.8%
Total	1284	538	746	746	746	789	485	789	789	789	1272	504	768	768	768	768
	Total%	41.9%	58.1%	58.1%	58.1%	61.9%	38.1%	61.9%	61.9%	61.9%	Total%	39.6%	60.4%	60.4%	60.4%	60.4%
Data does not include Severe SpEd students or ESL "A" students.																

Document 4**Mount Logan Middle School Enrollment 2007-2008**

UTAH STATE OFFICE OF EDUCATION
SCHOOL ENROLLMENT WITH HANDICAP BREAKDOWN
 404 - Mt. Logan Middle School (T Logan School District
 STUDENTS ENROLLED AS OF 12/13/2007

	American Indian Alaskan Native		Hispanic		Asian		Pacific Islander		Not of Hispanic Origin				Total		Totals
									Black		White				
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
6th Grade	1	3	60	61	10	5	1	1	1	1	147	145	220	216	436
7th Grade		2	52	29	7	14	1		2	2	124	163	186	210	396
8th Grade	5	6	54	56	5	7	2	4	6	1	140	137	212	211	423
SUBTOTAL	6	11	166	146	22	26	4	5	9	4	411	445	618	637	1,255
Self-Contained			6	9	2				1		14	7	23	16	39
TOTAL ALL STUDENTS	6	11	172	155	24	26	4	5	10	4	425	452	641	653	1,294

Document 5**Summer Learning Results****Goals:**

1. Improve Reading Fluency
2. Increase Reading Comprehension
3. Improve Writing Skills in Words Choice and Ideas

Data:

With more than 130 students tested, on average, students improved 21 words per minutes in only two weeks during our summer learning program.

Using Blooms Taxonomy as the indicator for comprehension gains, on average, students increased 24% in reading comprehension during our two week summer program.

Student comments from our 2007 summer learning program River Rats

- ✓ I improved at least a little in everything
- ✓ It was really cool and they should do it more.
- ✓ I think it brought back my skills that I had forgotten over the summer.
- ✓ I think it helped me understand the book and I learned a lot.
- ✓ I liked the book.
- ✓ I think I got better at reading and writing.
- ✓ Thank you for giving me this opportunity.
- ✓ It was a really great book, and it was really fun.
- ✓ I think reading the book and doing activities throughout the book was great I think it really helped improve my skills.

- ✓ We learned more by experiencing it.
- ✓ It was very cool and interesting and I enjoyed the book.
- ✓ I could improve my writing skills.
- ✓ It was a really great and fun experience because I could be the ones in the book.
- ✓ You could compare the book to your experience.

Parent comments from our 2007 summer learning program River Rats

- ✓ Vital for student who is still trying to learn to enjoy reading.
- ✓ Great program... writing, reading, real life experience... having children have goals and objectives for the two weeks for summer.
- ✓ Reading the book is great. The kids understand more, learn more and it means more to them.
- ✓ I think my son got better at reading and writing.
- ✓ They had a great experience and learned more independence.
- ✓ My children had so much fun and they learned at the same time. I really support this program.
- ✓ My child had a little trouble reading, now she is not afraid to read out loud.
- ✓ She had social needs which were met very well.
- ✓ Wonderful way to bring learning to life... Out of the box... Demanding...

Document 6

2005 summer learning report compiled by Thane Hutchinson

Evaluation and Assessments

Fluency Assessment:

Introduction

According to the Utah State Office of Education (USOE) Language Arts Core Curriculum, middle school students should be able to "develop reading fluency to read aloud grade level text effortlessly without hesitation." Specifically they should "Read aloud grade level text with appropriate speed and accuracy" at the rate of at least 120-150 words per minute and with at least 95% accuracy. They should read aloud grade level text effortlessly with clarity using intonation, expression and punctuation cues. And finally, they should read grade level words with automaticity. In order to meet these specific standards of literacy, teachers of the Mount Logan Middle School Summer 2005 Program were trained on how to help students improve fluency as described earlier in the training section of this document. The students took a grade level pre and post fluency assessment to measure the achievement effects of the teacher training and overall program. The pre and post fluency assessments were administered by the evaluator and a trained 6th grade Language Arts teacher in order to provide stability and reliability in the results. Please look below to see the specific result of this assessment.

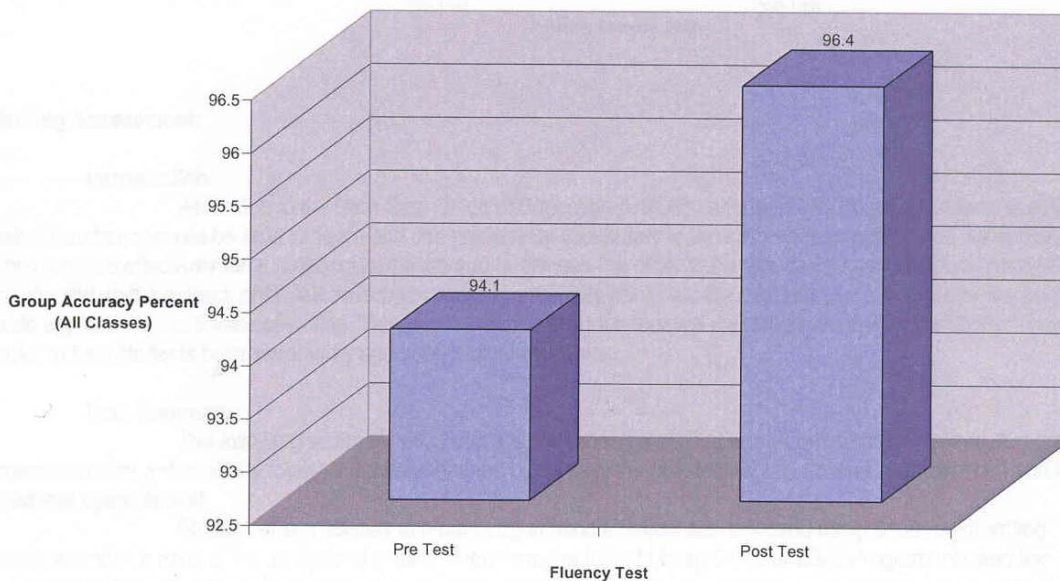
Data Summary

The following summary will provide a brief analysis of the all seven MLMS summer classes. A more comprehensive fluency analysis may be obtained by viewing the raw data (actual student assessments) and is available upon request.

As graph 1 below shows, students at the beginning of summer program were slightly below the accuracy standard. However, at the end of the program students were well within the limits of meeting the standard. Overall, students gained at least 2.4% in accuracy across all classes. This gain is attributed to the prescribed program/intervention explained earlier in this document.

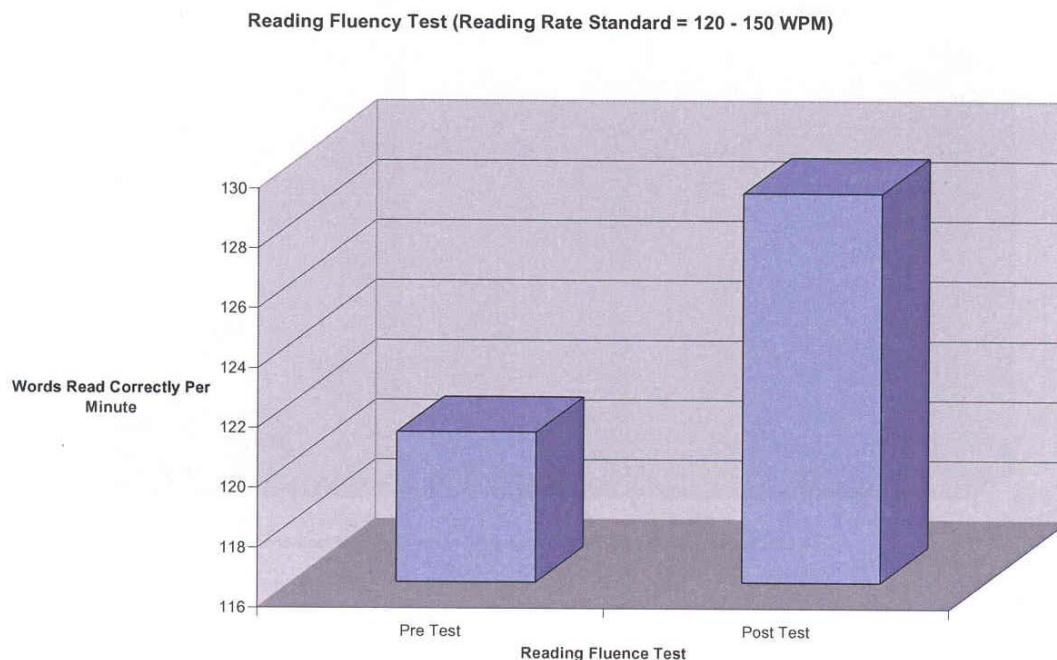
Fluency Graph 1.

Summer 2005 Student Reading Fluency Accuracy Percent (95% State Standard)



Fluency Graph 2 shows the increase in actual words read correctly per minute. At the beginning of the program students were reading an average of 121 words correctly per minute which is slightly within the acceptable range of 120-150WPM. At the end of the program students were reading 129 words per minute which is comfortably within the acceptable range. Many reading specialists agree that student fluency rates normally tend to decline during the summer months without school or other interventions. It is remarkable to see how this particular program not only helped student's maintain a level of fluency but helped them improve upon their previous level of fluency.

Fluency Graph 2



Writing Assessment:

Introduction

According to the Utah State Office of Education (USOE) Language Arts Core Curriculum, middle school students should be able to "learn and use grade level vocabulary to increase understanding" and "write daily to communicate effectively for a variety of purposes and audiences." In order to help students meet this core standard faculty and staff members of MLMS have been working extremely hard over the past few years to implement a school wide approach to the 6 traits of writing. This year's summer program focused exclusively on the "Word Choice" trait in order to help students build vocabulary and support fluency efforts.

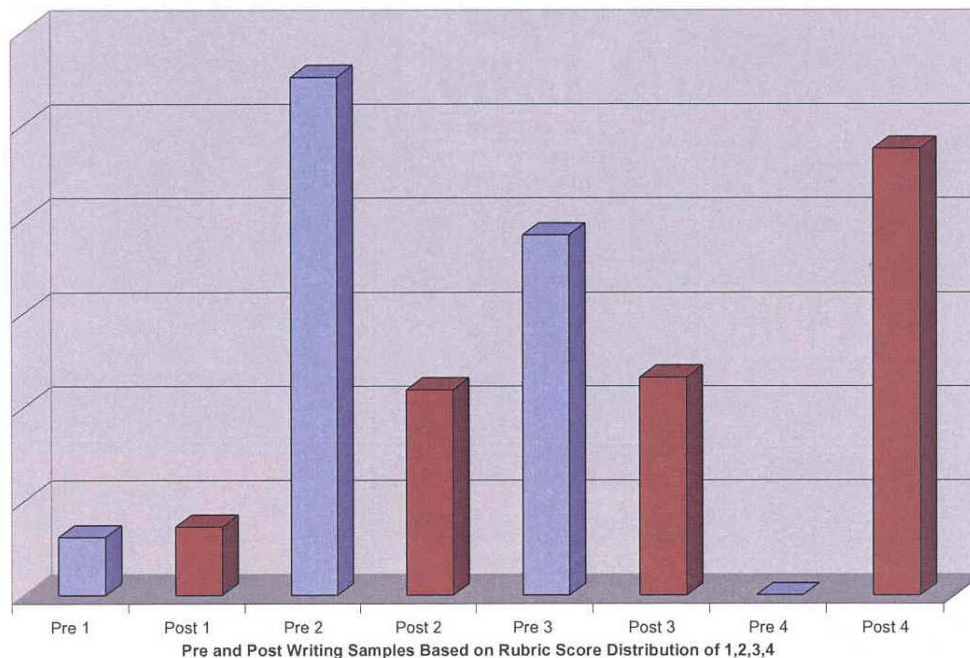
Data Summary

The following summary will provide a brief analysis of all seven MLMS summer classes. A more comprehensive writing ability analysis may be obtained by viewing the raw data (actual student assessments) and is available upon request.

Student writing abilities at Mount Logan Middle School are assessed using a four point writing rubric specific for each of the six traits of writing. Therefore, the Mount Logan Summer 2005 Program followed this pattern of assessing writing. Teachers of the program were trained on how to properly assess student writing using the rubric. A Pre and Post writing sample was administered within each class and to each student. Teachers of each class within the program scored the papers. It is important to note that the scores derived were obtained by consensus between each teacher of a particular class. The consensus ensures that the scoring is calibrated, fair and objective for each student. This resulting consistency produces validity in the scoring and results. Please look below at Writing Graph 1 to see the overall increases in student writing as a result of the program. As you can see the results are extremely significant. According to the pre - writing assessment results, the majority of students scored in the 1, 2 and 3 range. In contrast the post - writing assessment results show the majority of students scored in 3 and 4 ranges. The

improvement in student writing ability is attributed to the program's focus upon expanding student vocabulary (essential for the Word Choice Trait) through multiple journaling, writing, reading, and experiential learning activities.

Pre and Post Writing Scores Distribution Comparison (Based on MLMS 4 Pt. Rubric)



Critical Thinking Assessment:

Introduction

The critical thinking assessment component was added to the Mount Logan Middle School Summer 2005 Program in an effort to provide a method of capturing and reporting valuable critical thinking opportunities that students had as they traversed through the selected reading book and experiences of each class. The data for critical thinking was captured in the form of a teacher journal. Teachers were trained on how to stimulate critical thinking moments in the curriculum during the teacher training portion of the program. They were also trained and instructed on how to record the experiences in a teacher journal. Teachers will report at least three of these experiences in a post survey to be given in the latter part of September 2005. The survey will provide opportunities for teachers to evaluate how effective the teacher training component of this program was in helping build professional skills applicable in the summer as well as the regular academic school year. This assessment will provide extremely valuable qualitative data.

Data Summary

The results of the data can be viewed within the teacher surveys included with this document.

Document 7**Carnegie Report: Reading Next
Ten Recommendations for Effective Adolescent Literacy Programs**

- 1) Direct, explicit comprehension instruction in strategies and processes that proficient readers use to understand what they read.
- 2) Effective instructional principals embedded in content, using content-area texts and providing instruction and practice in reading and writing skills specific to their subject area.
- 3) Motivation and self-directed learning, which includes building motivation to read and learn and providing students with supports needed for independent learning tasks.
- 4) Text-based collaborative learning, which involves students interacting with one another around a variety of texts.
- 5) Strategic tutoring, which provides students with intense individualized reading, writing, and content instruction as needed.
- 6) Diverse texts, which are texts at a variety of difficulty levels and on a variety of topics. (This is the recommendation that we do not count as meeting during our summer programs, simply because we read one book with students).
- 7) Intensive writing, including instruction connected to the kinds of writing tasks students will have to perform well in high school and beyond.
- 8) A technology component, which includes technology as a tool for and a topic of literacy.
- 9) Ongoing formative assessment of students, which is informal, often daily assessment of how students are progressing.
- 10) Extended time for literacy, which includes approximately two to four hours of literacy instruction.

Appendix E

Sample Field Experience Destinations

SAMPLE FIELD EXPERIENCE DESTINATIONS

August: Archery at the mouth of Green Canyon

September: Little Bear River canoeing, Logan Airport, Logan Canyon fire-building,

October: National Predator Research Facility in Millville, Logan River Trail Planet Walk, Bear River canoeing

November: Willow Park Zoo, City of Logan Wastewater Treatment Facility, Blacksmith Fork River water quality testing,

December: Logan Canyon river trail, Anthropology Museum on USU campus

January: Hardware Ranch service learning, four color press at Watkins Printing, snowshoeing in Green Canyon, indoor rock climbing.

February: Hardware Ranch service learning, VFX radio station, snow science

March: Canoeing on Cutler Marsh, signs of spring in foothills, rock climbing (top rope) in Logan Canyon, Humane society

April: Water quality testing on the Logan River, Logan River trail,

May: Service learning project, canoeing on the Little Bear, foothills summit.

Appendix F

Book Lists

BOOK LISTS

Book lists are provided for the second and third years Discovery was in operation, before we added math for the 2011-2012 school year.

2010-2011 book list: (18 books - 3,284 pages)

[*Bridge to Terabithia*](#) by Katherine Paterson (May)
[*Journey to Jo'Burg*](#) by [Beverley Naidoo](#) (May)
[*My Side of the Mountain*](#) by Jean Craighead George (May)
[*Banner in the Sky*](#) by James Ramsely Ullman (April)
[*Esperanza Rising*](#) by Pam Munoz Ryan (March)
[*Maniac Magee*](#) by Jerry Spinelli (March)
[*The Education of Little Tree*](#) by Forrest Carter (February)
[*Island of the Blue Dolphins*](#) by Scott O'Dell (January/Feb)
[*Breadwinner*](#) by Deborah Ellis (January)
[*Snow Treasure*](#) by Marie McSwigan (January)
[*Crispin*](#) by Avi ([click here for author's website](#)) (December)
[*Over the Edge*](#) by [Gloria Skurzynski and Alane Ferguson](#) (November)
[*Cat Running*](#) by Zilpha Keatley Snyder (October-November)
[*Brian's Winter*](#) by Gary Paulsen (October)
[*Downriver*](#) by Will Hobbs (September-October)
[*Hatchet*](#) by Gary Paulsen (September)
[*Wolf Stalker*](#) by Gloria Skurzynski and Alane Ferguson (September)
[*Obsidian*](#) by David Hawkes (August)

2009-2010 school year (18 books, totaling more than 3,000 pages!)









[*Bridge to Terabithia*](#) by Katherine Paterson (May)
[*Journey to Jo'Burg*](#) by Beverley Naidoo (May)
[*My Side of the Mountain*](#) by Jean Craighead George (May)
[*Banner in the Sky*](#) by James Ramsely Ullman (April)
[*Crispin*](#) by Avi (March)
[*The Education of Little Tree*](#) by Forrest Carter (March)
[*Over the Edge*](#) by Gloria Skurzynski and Alane Ferguson (February)
[*Island of the Blue Dolphins*](#) by Scott O'Dell (February)
[*Breadwinner*](#) by Deborah Ellis (January)
[*Snow Treasure*](#) by Marie McSwigan (January)
[*Pandora of Athens*](#) by Barry Denenberg (December)
[*Cat Running*](#) by Zilpha Keatley Snyder (November)
[*Brian's Winter*](#) by Gary Paulsen (November)
[*Downriver*](#) by Will Hobbs (October)
[*Brian's Hunt*](#) by Gary Paulsen (October)
[*Wolf Stalker*](#) by Gloria Skurzynski and Alane Ferguson (Sept/October)
[*Hatchet*](#) by Gary Paulsen (September)
[*Obsidian*](#) by David Hawkes (August/September)

Appendix G

Discovery 2008-2009 Data

DISCOVERY DATA 2008-2009 SCHOOL YEAR

Power Point slides prepared by Bryce Passey for a School Board presentation at the end of the first year.

<div style="text-align: center;"> <p>Mount Logan Middle School</p> <h1 style="color: #00AEEF;">Discovery</h1> <p>2008 – 2009 Reading Improvement Data Summary</p>  <p>www.mountlogandiscovery.org</p> </div>	<div style="text-align: right; font-size: small;">Discovery</div> <h3 style="text-align: center; text-decoration: underline;">Assessing Our First Year</h3> <p>The 2008 – 2009 school year was the maiden voyage for Mount Logan Discovery. We learned along with the kids and we anticipate an even better year now that we have our sea legs.</p> <p>The following is a summary and analysis of the reading data gathered by our school literacy coach, Betty Simper. She used the Gates McGinitie reading assessment to verify our students' progress. They were pretested in September, tested again in January, and a final assessment was given in May.</p> 																																							
<div style="text-align: right; font-size: small;">Discovery</div> <h3 style="text-align: center; text-decoration: underline;">The "Discovery" Learning Model</h3> <ul style="list-style-type: none"> • Reading Premises: <ol style="list-style-type: none"> 1. No skill more universally critical to school achievement than reading. 2. Reading is of primary importance in ALL academic areas. 3. Each student is expected to gain one grade level each year in reading ability. 4. If a student enters 6th grade reading below grade level we have to find a way to make up the deficit so they are competitive in 7th grade. 5. Students need to LOVE reading if they are going to close "the gap!" (Curiosity Quotient + Passion Quotient > IQ) 	<div style="text-align: right; font-size: small;">Discovery</div> <h3 style="text-align: center; text-decoration: underline;">The "Discovery" Learning Model</h3> <ul style="list-style-type: none"> • Students need background knowledge – They don't lack vocabulary, they don't lack ability – they are stuck in the mechanics and can't "see" what they are reading • Bring the book to life - get kids out, put them into the story, make the story come alive, make the story real, live the book. • Integrate reading and writing instruction. • "If kids are going to write, they need something to write about" Lucy Caulkins, <i>The Art of Teaching Writing</i> • Get the kids into a rich environment, give them a reason to write, encourage, praise, and get out of the way. 																																							
<div style="text-align: right; font-size: small;">Discovery</div> <h3 style="text-align: center; text-decoration: underline;">The "Discovery" Learning Model</h3> <ul style="list-style-type: none"> • Evolution and expansion of the "Discovery" Learning Model <ul style="list-style-type: none"> • 2008-2009 Discovery began with 60 students (struggling learners) • 2008-2009 <ul style="list-style-type: none"> • Discovery expanded to 72 students • ESL Discovery added to assist MLMS ESL students to move forward in their acquisition of academic language and reading abilities <ul style="list-style-type: none"> • 6th grade 72 students (ESL and non ESL students) • 7th grade 21 ESL students • 8th grade 21 ESL students • 54 students Trudy Peterson • 10 students Wyatt Lusk • TOTAL of 250 students with the opportunity to get out and learn in a rich natural environment 	<div style="text-align: right; font-size: small;">Discovery</div> <h3 style="text-align: center; text-decoration: underline;">Discovery Grants</h3> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>• MAOF (Multicultural Adventure Outdoor Foundation)</td> <td style="text-align: right;">\$60,000</td> <td></td> </tr> <tr> <td>• Barry and Suzanne Noorda family</td> <td style="text-align: right;">\$ 7,000</td> <td></td> </tr> <tr> <td>• Logan School Foundation</td> <td style="text-align: right;">\$ 250</td> <td></td> </tr> <tr> <td>• Ruth Ann Peace and Stephanie Udy</td> <td style="text-align: right;">\$ 80</td> <td></td> </tr> <tr> <td>• Black Canyon Guides</td> <td style="text-align: right;">\$ 200</td> <td></td> </tr> <tr> <td>• Auto Spa Carwash</td> <td style="text-align: right;">\$ 100</td> <td></td> </tr> <tr> <td>• MSR Snowshoe Manufacturer</td> <td style="text-align: right;">\$ 750</td> <td></td> </tr> <tr> <td>• Camp Chef</td> <td style="text-align: right;">\$ 250</td> <td></td> </tr> <tr> <td>• Alpine Cleaning</td> <td style="text-align: right;">\$ 250</td> <td></td> </tr> <tr> <td>• JF Prince Gallery-<i>The Art of Framing</i></td> <td style="text-align: right;">\$ 250</td> <td></td> </tr> <tr> <td>• Rockhaus Indoor Climbing Gym</td> <td style="text-align: right;">\$ 110</td> <td></td> </tr> <tr> <td>• Reminder bands</td> <td style="text-align: right;">\$ 80</td> <td></td> </tr> <tr> <td>• Grand Total</td> <td style="text-align: right;">\$69,320</td> <td></td> </tr> </table> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;">     </div>	• MAOF (Multicultural Adventure Outdoor Foundation)	\$60,000		• Barry and Suzanne Noorda family	\$ 7,000		• Logan School Foundation	\$ 250		• Ruth Ann Peace and Stephanie Udy	\$ 80		• Black Canyon Guides	\$ 200		• Auto Spa Carwash	\$ 100		• MSR Snowshoe Manufacturer	\$ 750		• Camp Chef	\$ 250		• Alpine Cleaning	\$ 250		• JF Prince Gallery- <i>The Art of Framing</i>	\$ 250		• Rockhaus Indoor Climbing Gym	\$ 110		• Reminder bands	\$ 80		• Grand Total	\$69,320	
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<div style="text-align: right; font-size: small;">Discovery</div> <h3 style="text-align: center; text-decoration: underline;">Unmeasureable Progress</h3> <p>There are a number of qualitative benefits that are difficult, if not impossible to measure:</p> <ul style="list-style-type: none"> • Confidence • Resilience • Attitude • Friendships • Advocacy • Sense of belonging  <p style="font-size: x-small;">These attributes are the result of having a block of time during the day and participating regularly in meaningful outdoor experiences.</p>	<div style="text-align: right; font-size: small;">Discovery</div> <h2 style="text-align: center; text-decoration: underline;">2008 - 2009</h2> <h1 style="text-align: center; text-decoration: underline;">Discovery</h1> <h2 style="text-align: center; text-decoration: underline;">Data</h2>																																							

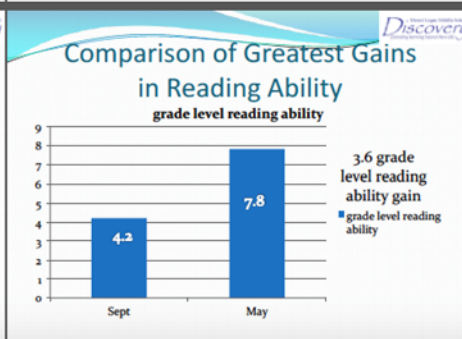
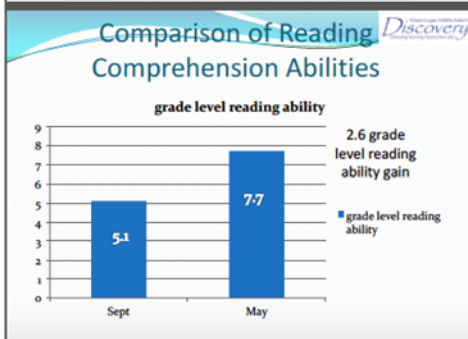
The Achievement Gap

They say this thing is gonna close. They say when?

Achievement Gap

Discovery / 2008 - 2009 Reading Improvements

- 44 of our 52 students (85%) entered Discovery reading below grade level.
- 37 of those 44 students (85% again) left Discovery reading on or above grade level.
- Our average entrance reading ability was 5.1
- Our average exit reading ability was 7.7 (that is an average reading gain of 2.6 years)



Discovery / 2008 - 2009 Reading Improvements

To truly grasp the significance of the progress our Discovery students made, you need to clearly understand that 85% of these students came into Discovery reading below grade level. Whatever varieties of reading methods they had previously experienced had not succeeded in bringing these kids up to grade level. Therefore, upon leaving the security of a single teacher in elementary school and entering the multiple classes and multiple teacher world of the middle school, they were not academically prepared to compete with their peers. Their confidence was down as well as their abilities. Mount Logan Discovery is a form of differentiated instruction.

"I don't want to know that all kids can learn, I want to know what you do when they don't" - Rick DuFour

Discovery / 2008 - 2009 Reading Improvements

- An average reading improvement of 2.6 to 3.6 grades in one school year???
- How is that possible?
- Are you sure your testing data was reliable?
- Was this a fluke?
- Is it sustainable?
- Is it duplicatable?

Even though the 2008 - 2009 school year was the maiden voyage for Discovery, we assure you the reading improvements we achieved are not an anomaly. We hope to continue to expand and impact more students.

Discovery What's Next?

Never, ever, think outside this box!

"Discovery" Summer 2009

Summer 2009

- * Thanks to the MAOF grant we ran a highly successful summer program for our ESL students called - "Outdoor Language Adventures." OLA worked with 30 ESL students in three different week long language adventures ranging from canoeing to horseback riding.
- * Also, thanks to MAOF, nearly half of the incoming Discovery students were able to jump start their 6th grade middle school transition by participating in the two week River Rats program. This gave us a head start on this school year.

CURRICULUM VITAE

ERIC JACKSON NEWELL

746 Canyon Road
Smithfield, Utah 84335

(801) 520-3607
eric.newell@usu.edu

Education

Ph.D. Utah State University, Logan, Utah

- Graduation Date: May 2018
- Dissertation: Undercurrents: The Life Cycle of an Outdoor Experiential Learning Program in a Mainstream Middle School

M.Ed. Elementary Education, Utah State University, 2003

- Areas of Interest: Environmental education and African American history.

B.S. Elementary Education, Utah State University, 1998

- Emphasis Areas: Elementary education social Studies, science, and writing.

Graduate, National Outdoor Leadership School, Alaska Program, 1991

- 31-day Prince William Sound intensive sea kayaking course
- Emphasis: Wilderness safety, group dynamics, leadership, and risk management

Experience

2015 to Present, Director of Experiential Learning and Technology (formerly STEAM Specialist)

- Provide job embedded professional development for teachers grades K-6.
- Facilitate integrated curriculum-based field experiences for K-6 students.
- Facilitate GEAR UP! USTARS Green Power electric car races for 4th, 5th, and 6th graders
- Manage 300 Chromebooks and provide teacher training for effective utilization of technology
- Facilitate social media for Edith Bowen Laboratory School
- Creation of Edith Bowen Laboratory School website: www.EdithBowen.usu.edu
- Vice Chair, Edith Bowen Laboratory School Community Council
- Member of the Edith Bowen Laboratory Leadership Team

2014-2015, Temporary Lecturer, Emma Eccles Jones College of Education and Human Resources, Utah State University

- Taught five main methodology courses for Secondary and Elementary Education

majors—Science Methods, Content Area Literacy, Adolescent Literacy Development, Assessment and Curriculum Design, and Classroom Management.

- Coached and evaluated pre-service teachers as they completed their electronic teaching portfolios—based on the Utah Effective Teaching Standards.
- Designed, proposed, and taught Principals of Experiential & Outdoor Education.
- Currently teaching Science Methods for elementary teachers.

2008-2015, Energy Manager, Logan School District

- Reduced district utility expenses by more than \$1.5 million through people-based management—educating staff, eliminating wasteful habits, and praising success.

2004-Present, Owner, Black Canyon Guides, LLC

- A guidebook publishing and paddle sport business serving Idaho's Salmon River and Cache Valley (www.BlackCanyonGuides.com)

2007-2014, Co-Founder/Educator, Mount Logan Discovery, Mt. Logan Middle School

- A sixth-grade program grounded in educational research that used service learning and experiential learning as a catalyst to integrate science, social studies, math, and language arts. The program served a large percentage of struggling and reluctant learners. For details, teaching videos, and examples of service learning projects visit www.MountLoganDiscovery.org. Founding, funding, and operating this program has included many administrative responsibilities.
- Field aspect utilized differentiated instruction, experiential learning, service learning, building academic background knowledge, and a constructivist approach to teaching.
- Piloted with various segments of the student body ranging from at-risk to gifted and talented students. Piloted a five-month program (2012) that provided small group field experiences to all 450 sixth graders at Mount Logan Middle School.
- Established relationships with Hardware Ranch Wildlife Management Area, National Wildlife Predator Research Center, City of Logan Parks and Recreation, Cache Humane Society, Logan City Water Treatment Plant, Utah Water Watch Streamside Monitoring, the U. S. Forest Service, the Utah Avalanche Forecast Center, and Utah State University.
- Pacific Crest Trail Math: Followed daily progress of local adventurer, Richard Jones, for four months while he backpacked 2,650 miles from Mexico to Canada. Daily math instruction was based on his progress. Other curriculum ties included science and writing.
- Logan River Trail Interpretive Trail Signs Project: In partnership with the City of Logan Parks and Recreation, students researched, planned, and designed interpretive trail signs for the extension of the Logan River trail below 1000 West. Installation completed spring, 2015.
- Hardware Ranch Service Learning: Since 2006, my students have provided more than 3,500 volunteer hours feeding elk and assisting wildlife biologists with trapping and testing elk for disease.

- Utah Water Watch Project: Adopted two locations on the Blacksmith Fork River to monitor water quality on a monthly basis and input results into a statewide database.
- Stem Bore Weevil Project: Students assisted wildlife biologists to survey for and release stem bore weevils into the meadows at Hardware Ranch Elk Refuge to control invasive takeover by Canada thistle. The experience provided context for our science, math, and language arts curriculum. This was a partnership between Mount Logan Middle School, the US Forest Service, the Division of Wildlife Resources, and Utah State University.
- Successful use of Facebook for classroom communication and transparency.

2003-2015, Summer Discovery River Rats Program

- Provided outdoor literacy-based summer school experiences in Grand Teton National Park and Cache Valley using the Bringing Literature to Life Model developed with colleagues at Mount Logan Middle School. Visit www.MountLoganDiscovery.org and click on the “Summer Discovery” link in the top menu bar for more details.
- Administrative duties include grant writing, budgeting, registration, planning curriculum and instruction, logistics, communicating with parents, and risk management.

2008, Co-Founder ELL Discovery at Mount Logan Middle School

- A sister program to Mount Logan Discovery designed specifically for English Language Learners. Provided field experiences to enhance English acquisition by building peer and teacher relationships, academic background knowledge, and academic vocabulary.
- Between 2007 and 2015, Mount Logan Discovery, ELL Discovery, and Summer Discovery provided more than 30,000 individual academic-based outdoor experiences designed to enhance content area learning for approximately 2,000 different middle school students.

2008-2011, President, President Elect, and Past President, Logan Educators Association

- Negotiated teacher contracts, mediated conflicts between administration and educators, focused on issues that impacted students, created and maintained an LEA website, and built a strong working relationship with Logan School District administration based on consistent communication and practical problem solving.
- Interest-based negotiations training.

2003-2007, Sixth Grade Science Educator, Mount Logan Middle School

- Use of science journals as a catalyst for integrating math, social studies, and literacy.
- Created and implemented Backward Design Units of all of my science content.
- Solar Calendar and Human Sundial Project: Designed and installed a solar calendar and human sundial on school grounds with students—integrating

science, social studies, literacy, and math.

- Planet Walk Project: A mile-long scale model of the solar system on the Logan River trail, after planning and installing, students created solar system podcasts for trail users to download online and listen to while they walk.

1998-2003, Fifth Grade Teacher, Ellis Elementary School, Logan, Utah

- Use of Writer's Workshop and a spelling word wall to provide authentic writing and spelling instruction.
- Ocean-Rowing Math: Followed Richard Jones' daily progress while he rowed a boat, he constructed in his garage, across the Atlantic Ocean for four and a half months—providing a context and applications for math instruction in addition to the science, social studies, and language arts curriculum.
- Recycling Project: As part of the natural resources curriculum, students contacted Logan City and school administration to acquire cardboard and paper recycling bins at Ellis that remain in use today (since 1998).
- Foothills Fire Project (3 years): Field-based instruction at a local wildfire location east of Logan, Utah for students to learn about the natural resources aspect of the 5th grade curriculum. This project was in collaboration with Utah State University Environmental Education students enrolled in the College of Natural Resources.

1995-1999, Rock Climbing Instructor

- Utah State University, 1995-1999
- Deep Springs College, Spring 1997 & 1998

2017 to Present, Lead Guide, Middle Fork of the Salmon River, BSA Whitewater

- Training and mentoring new guides on a five-day section of world-class whitewater
- Customer service and risk management.

1994 to 2001, Licensed River Guide and Manager of Idaho Operations, World Wide River Expeditions

- Provided quality outdoor educational experiences for people age 6 to 89
- Participated in hiring, dismissal, and training of guides for the Idaho operation
- Guided nearly 100 six-day whitewater rafting trips over seven summers down the Salmon River through the River of No Return Wilderness in central Idaho.

Caretaker of the Allison Ranch, River of No Return Wilderness, Winter, 1994

- Responsible for property and building maintenance throughout the winter season at a backcountry ranch assessable only by bush planes outfitted with snow skis.

Endorsements and Certifications

- 2017, Wilderness Advanced First Aid Certification, National Outdoor Leadership School

- 2009, Wilderness First Responder Certification, National Outdoor Leadership School
- 2007, Educational Technology Endorsement and EMINTS training.
- 2003, Member of Utah Society of Environmental Educators Development Team
- 2003, Utah Certified Environmental Educator, Charter Inductee
- 2001, Fire Works Wildfire Educational Training, National Wildfire Sciences Laboratory, Missoula, Montana

Teaching Awards and Recognitions

- *Logan High School 2013 Teacher Recognition Award*, Logan High School Senior Class
- *2011-2012 Alumni K-12 Teacher Award*, Emma Eccles Jones College of Education and Human Resources, Utah State University
- *2011 Environmental Stewardship Award*, Cenergistic: The Energy Conservation Company, Dallas, Texas
- *2008 Carl Johnson Educator of the Year Award*, Bridgerland Audubon Society
- *2007 Water Quality Educator Award* for outstanding efforts as an environmental educator, presented by the Utah Non-Point Source Task Force, Utah State University
- *2006-2007 Mount Logan Middle School Teacher of the Year*
- 1999-2014 *The Herald Journal* published twenty-four articles on projects, field programs, and service learning activities related to my teaching practices.

Funded Proposals—Approximately \$390,000 since 2007

- \$180,000 Multicultural Outdoors Adventure Foundation grants, 2008-2013
- Exceeded \$16,000 community contributions for Mount Logan Discovery, 2008-2013
- \$4,500 Iron Mountain Foundation, 2011
- \$1,200 Kiwanis Club of Logan, 2011
- \$30,000 EPA, Global Stream Connections Grant, 2010
- \$3,000 Camp Chef, 2010
- \$150,000 Member of writing team for Enhancing Education Through Technology (EETT) grant, 2007
- \$1,000 Target Field Trip Programs, 2007
- Joint recipient, \$5,000 grant from the US Forest Service for wildfire education, 2007
- \$1,000 Ellis PTA to develop the Ellis Elementary outdoor classroom, 2000
- Visit www.MountLoganDiscovery.org for a complete list of grants awarded 2007-2014

Conference Presentations

- Newell, E. J. (March 2015). “Mount Logan Discovery: The Struggle to Build an Outdoor Environmental and Experiential Learning Program in a Public School System.” Bio-Regional Outdoor Education Project (BOEP), Blanding, Utah.

- Newell, E. J. (March 2015). “Hands on Literacy: Field-Based Writing Strategies.” Bio-Regional Outdoor Education Project (BOEP), Blanding, Utah.
- Newell, E. J. (March 2013). “Ancient Astronomers: Building Solar Calendars and Sundials to Teach Students About Indigenous Cultures, Basic Astronomy, and Applied Math.” Bio-Regional Outdoor Education Project (BOEP), Blanding, Utah.
- Newell, E. J. & Humpherys, J. (November 2012). “Mount Logan Discovery: A Unique, Field-based Approach to Teaching Literacy, Science, and Math.” Association of Middle Level Educators, Portland, Oregon.
- Newell, E. J. & Passey, B. (June 2010). “Mount Logan Discovery: A Field-Based Approach to Teaching Literacy to At-Risk Adolescents.” Schools to Watch National Forum, Washington D.C.

University Courses Taught

- ELED 4000, Science Methods, 3 credits, Broadcast, Fall 2014 to Present
- ELED 4030, Teaching Language Arts, 3 Credits, Fall 2018
- SCED 5500, Student Teaching Seminar, 2 Credits, Spring 2016 & Spring 2017
- EDUC 6540, Data-Based Decision Making For School Leaders, 3 Credits, Summer 2017
- TEAL 5560/6560, Experiential Education, 3 credits, Spring 2015
- SCED 4210, Assessment and Curriculum Design, 3 credits, Fall 2014 and Spring 2015
- SCED 3100, Classroom Management, 3 credits, Broadcast, Fall 2014
- SCED 4200, Content Area Literacy, 3 credits, Fall 2014
- TEAL 5340, Adolescent Literacy Development, 3 credits, Online, Spring 2014, Summer 2014, and Summer 2015
- TEAL 6340, Adolescent Literacy Development, 3 credits, Broadcast (TA) Spring, 2013

Professional Development and Training Experience

- Provide ongoing, job-embedded professional development for teachers at Edith Bowen Laboratory School. Topics include teaching science, language arts, social studies, math, planning and executing effective field programs, integrating curriculum, and applying constructivist learning theory.
- Place-based learning seminars for Elementary Education Majors at USU, ongoing since Spring 2015
- Backward Design course taught as part of Educational Technology Endorsements for classroom teachers, 2007-2008
- Provided training for educators on web design (Dreamweaver), digital cameras, Fireworks, Movie Maker, Power Point, Publisher, Garage Band, iMovie, and Podcasting
- Web design: www.edithbowen.usu.edu, www.blackcanyonguides.com, and www.mountlogandiscovery.org,
- Designed CANVAS courses and modules for USU and Mt. Logan Middle School

Writing

Books

- Author, photographer, layout and design, and publisher, *Idaho's Salmon River: A River Runner's Guide to the River of No Return*, Black Canyon Guides, 2005 (1st Edition), 2011 (2nd Edition), and 2014 (Updated 2nd Edition). 14,000 copies in print.
- 2006 National Outdoor Book Awards, Honorable Mention—competed with the likes of the Mountaineers, National Geographic, Falcon, Globe Pequot and assorted New York publishers.

Articles

- Newell, E. J. (2013, November). When the walls close in: canyoneering draws explorers to Zion's Subway. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2013, October). Magnetic pull: Westwater Canyon offers tricks, treats, on Colorado River. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2012, June). River connection: family, friends raft the Yampa River. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2012, March). Single track minded: Cache Valley riders find warm weather, miles of new trails in Southern Utah. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2011, January). Running dirty: flood conditions can turn trickles into torrents on the Virgin River. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2009, December). Grand Canyon: rafting trip down the granddaddy of 'em all provides a lifetime of experiences. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2008, October). Land of mystery: much still unknown about Chaco culture. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2006, May). Wisdom and the folly: local mountain attracts skiers despite tragic past. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2005, October). Mostly sunny: a dad, three kids, and a late season raft trip—what could possible go wrong? *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2002, February). Peak experience: Wellsville Mountains ski trip offers more than good snow. *The Herald Journal, Outdoors Section*.
- Newell, E. J. (2001, May). Down the Selway River on a Wing and a prayer: a journey into sublime chaos. *Utah Outdoors Magazine*.

Editing

- Editorial staff, *Petroglyph: A Journal of Creative Natural History Writing*, Utah State University, 1996