

“Give a man a fish and you feed him for a day...*Teach* a man to fish and you feed him for a lifetime.” -Chinese Proverb



Marissa's Bio:

I am a middle school math education major with a music minor. Despite the common stereotypes about those who are mathematically inclined, I have a pretty creative side. It spills into my music, other forms of art, and activities I get involved with. In my time at UMSL I've been involved in the Symphonic band, the dance team, and Kappa Delta Pi (Honor Society for Educators), I love life and the outdoors. When I'm not at UMSL, I teach private flute lessons to 13 wonderfully enthusiastic young students. I enjoy experiencing new things, especially new cultures. This is why I spend time on Pine Ridge Indian Reservation, South Dakota, working for a volunteer organization in the summers. The background photo of this page is a view from the highest point on a dirt road on "the Rez."

“Try a new path, a new road, a fresh breath. It's amazing what you'll discover, how you'll grow.”

-Marissa Lightner

WANTED!
Careers in Math
Middle School Mathematics
Marissa Lightner
Spring 2011

Rationale: Students often think that math skills are not used in all careers. They tend to believe that the “fun” jobs require little understanding of math, and those jobs involving higher knowledge of math are “boring.” It is important for students to see two key ideas. The first idea is that math is everywhere, even in places where they might not expect to encounter it. Secondly, they should discover that there are math related careers that are focused in whatever skill or activity interests them. *Having some interest or some personal connection to a subject or concept is key for lasting learning to occur.*

Summary:

[Week 1] Students will first explore what exactly interests them, using mainly the Bureau of Labor and Statistics Informational website for youth. They will choose several careers that interest them and record important information for each one. In the process they will learn how math skills are used in each career, which may be surprising to them.

[Week 2] Students analyze the careers they have researched through a **Venn diagram**, comparing and contrasting the similarities and differences between two careers. This may lead to some surprising similarities between different careers. Students then complete an **observation notebook** on a single career chosen from their Venn diagram. This is to give them a feel for more specific details about that job.

[Week 3] Students will use the information acquired in the previous weeks to create a wanted ad for a position in the career they have chosen. In the ad’s information, the students will need to demonstrate their knowledge of the math used by this career.

Objectives:

- Students will predict what type of career they would enjoy.
- Students will analyze and compare the types of (math) skills required for different careers.
- Students will apply their research toward creating a realistic job ad.

Time: 4 days of class time total

Lesson/week-1: one day to work in class (the remainder of the week is independent at home)

Lesson/week-2: one day to work in class (the remainder of the week is independent at home)

Lesson/week-3: one day to work in class (Monday), one day for presentations (Friday)

Materials:

- School:** computers (with internet); construction paper; markers; scissors; glue; printer access
- Teacher:** examples
- Student:** journal for observation notebook, and end product.

Formative Assessment: Throughout Lesson 1 & 2 the teacher will circulate providing oral feedback, written comments on assignments, and checking for each student's participation in the process.

Summative Assessment: The Wanted ad and observation notebook will be turned in and graded for quality as a summative assessment.

LESSON/Week 1: “What Do You Like to Do?”(Clustering)

Rationale: Students should get to choose a topic that interests them for a long term project. This allows the students to get an idea of what they like, since often they do not know what they like in regards to careers.

Objectives:

- Students will discover what careers might be more interesting for them personally
- Students see which math skills are most common among jobs
- (-Students gain the idea that math is everywhere)

Resources: computer and internet access; students need notebooks

| | |
|----------------|---|
| Timing: | |
| 5 min | Brainstorm – a) things they like to do, b) possible careers |
| 20 min | Research several careers online: bls.gov/k12 -Students will work toward acquiring the following information: (for 3 careers of their choice) <ul style="list-style-type: none">-description of the job-required skills-salary-demand for job/ weekly work load-attractive aspect of the job-promotional opportunities |
| 10 min | Clustering – place the 3 jobs and the acquired info about them into a “cluster” diagram to demonstrate connections between the jobs. |
| 15 min | -List Math Skills that are used in the jobs -Show their knowledge about that skill -add the skill to the “cluster” diagram |
| 10 min | -Finish up and narrow it down to 2 careers |

***Extra time at the end of class during this week will be allowed for finishing up any unfinished work.**

LESSON/Week 2: “Interview”(Venn Diagram & Observation Notebook)

Rationale: Observing and/or speaking with someone on the job will give students a realistic idea of what each particular job is like.

Objectives:

- Students will analyze careers by comparing and contrasting information about each one
- Students will search deeper how one occupation uses math on a daily basis through observation or interview.

Resources: computer and internet access; paper and pencil; Venn Diagram hand out

| | |
|----------------|---|
| Timing: | |
| 20 min | Wrap-up previous weeks steps in the process. |
| 20 min | Venn Diagram – students chose two careers to compare within a Venn Diagram. -the purpose is to see which career interests them more. -choose one specific career |
| 20 min | Students make an <i>Observation notebook</i> from several options: a) watching a video of a worker b) watching a worker in person c) Interviewing a worker in that field. Notebook should answer in detail: <ul style="list-style-type: none">• How does this person use math?• What surprised you about this career?• What did you expect? (or What did not surprise you?) *Be sure to print out any pictures you might want to use for the “Wanted Ad” next week, if you don’t have a printer at home. |

***Extra time at the end of class during this week will be allowed for working on the Notebook.**

LESSON/Week 3: “You’re the boss”

Rationale: Students learn well when they role play. It is important for them to practice taking on different roles.

Objectives:

- Students will create a realistic “Wanted Ad” for the chosen career
- Students will demonstrate their knowledge of the math used in this job

Resources: construction paper, pictures, markers, glue, scissors

Timing:

(5-10 min) Demonstrate Example & explain the expectations.

(50 min) Create the “Wanted Ad”

-This is based off the materials and/or information they have gathered from Lesson 1 & 2.

-Ad should include:

- Description of the job
- Required skills (be sure to include math skills and non-math skills)
- Salary
- Demand for the job
- Work load (per week/year/etc.)
- Draw (positive aspects of the career)
- Promotional opportunities
- Picture & attractive design

Teacher's Calendar:

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---------------|---|---|---|---|---|
| Week 1 | (computer lab) “What do you like to do?” -Brainstorm -Research -Cluster -Add math skills | -extra time used for finishing project. | -extra time used for finishing project. | -extra time used for finishing project. | -extra time used for finishing project. |
| Week 2 | (computer lab) “Interview” -Venn Diagram -Start Observation Notebook | -extra time used for finishing project. | -extra time used for finishing project. | -extra time used for finishing project. | -extra time used for finishing project. |
| Week 3 | (regular classroom) “You’re the Boss” -Explanation -Make Wanted Ad | -extra time used for finishing project. | -extra time used for finishing project. | -extra time used for finishing project. | <u>PROJECT DUE!</u> -Wanted Ad -Observation Notebook |

WANTED

Careers in Math

Middle Grades Math

Ms. Lightner

DAY 1: "What do you like?"

*Brainstorm things you like to do and possible careers on a piece of paper.

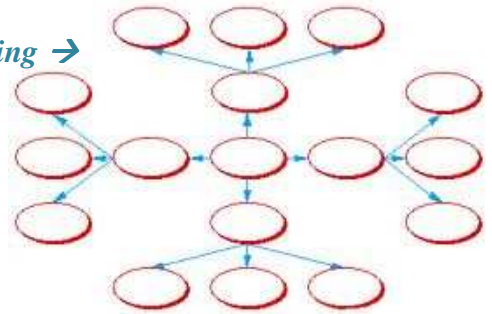
*Decide what you might like to do, based on information from: bls.gov/k12

*Research and Compare 3 Careers in Math.

-Record the following for each career:

description of the job, required skills (math and non-math related), salary, demand for the job/weekly work load, attractive aspects of the job, promotional opportunities.

*Connect the jobs with the skills they have in common using *Clustering* →



DAY 2: "Interview"

*Interview OR Observe a worker in ONE career
(Record your findings in an "Observation Notebook")



Include these questions PLUS your own:

- How does this person use math
- What surprised you about this career?
- What did you expect to find?

[DUE: with day 3's Wanted Ad]

DAY 3: "You're the boss"

*Create a "Wanted Ad" for the career of your choice.

*Use the information you collect from:

- Internet Research
- Interview or Observations



WANTED

A COOL 8TH GRADE MATH TEACHER!



Job Description: A middle school math teacher gets to hang out with teenagers and teach them the math they will be able to use for the rest of their lives.

Required Skills:

This middle school math teacher must be personable, and funny. Needs to know how to talk with teenagers, and how to do the math they are teaching.

\$Salary\$: \$35,000 per year, weekends & part of the summers off

Job Demands: This teacher needs to be willing to take *some* time for making lessons and projects outside of school time, in addition to teacher & parent meetings. Energy is needed throughout the day with the students.

*This job is fun, and exciting. The teacher gets to make spontaneous decisions and have time with their families over the summers and holiday breaks.

Promotional Opportunities: Masters degree earns a higher pay. Principal, administrator, or counseling available with higher education.

Marissa Lightner
Writing for Teachers
I-Search

Lessons from the Rez

“What lies behind us and what lies before us are tiny matters compared to what lies within us.”
-Ralph Waldo Emerson

Grasping a boulder for balance, I waited for my vision to fully return. I had ignored the warning, or partial threat, to drink lots of extra water and now I was paying the price. Clouds were nonexistent and the air was so hot it was undesirable to breathe. Under the scrutiny of the sweltering sun I took a drink from my water bottle, allowing some to miss, temporarily cooling my already sweat soaked shirt. The group was still in sight so I hurried to catch up, just in time to arrive at the opening to “the sanctuary.” The area was enclosed by the surrounding ridges, except for the entrance where we stood, and those ridges provided the only small perimeter of shade since there was no significant vegetation. *This*, the “sanctuary,” is where they instructed us to reflect for 40 min, or longer if we wished. When everyone had finished and met back at the entrance, we would start the return of the hike.

Half heartedly, I trudged into the sanctuary, wandered off to the side and sat down. The cracked clay-like ground was hard and lumpy, not ideal for sitting or lying on, but I did anyway. After a few minutes, I started to forget about the previous discomforts – allowing my thoughts to drift. While I began to ponder why I was here, a cool breeze tunneled through the opening and swept over the entire sanctuary... It really *was* a sanctuary. Then, I noticed the complete absence of noise pollution. It was one of the most serene experiences I’ve ever had. Soon, I found myself believing I *could* sit there more than 40 minutes.

This hike is made through the Badlands National Park on Pine Ridge Indian Reservation, South Dakota, is made right after visiting the site and cemetery of the Massacre at Wounded Knee on Sunday. It is the first day of the week for each set of volunteers; starting the work week

off with a better frame of mind for the surrounding atmosphere – home to the Oglala Lakota people. Pine Ridge is one of the most dreadful and beautifully addicting places I’ve been. Most people may think, “Who on earth would *choose* to be on the Rez - to live there - to work there?” But I don’t see the Rez the way they do.

Pine Ridge is one of the poorest Native American Reservations in the United States, home to over 46,000 people, 50% of whom are under 18. Around 85% of the population is unemployed and the median income range is \$2,600-3,500. Infant mortality, suicide, alcoholism, and diabetes are rampant – each reaching statistics many times higher than the U.S. average. Due to the geographic location, weather is extreme on the Reservation. Typically, summer temperatures reach well over 110°F and winters can reach a bitter -50°F or worse. Severe winds are always a factor - floods, tornados, and especially wildfires are risks. Some people live in shabby little housing clusters and some in individual trailers, many of which are practically falling apart, or infected with mold and other toxins.

Children attending any school on Pine Ridge Reservation have a hard time making it to school because they have many miles to travel with no transportation, regardless of weather conditions. School supplies are limited and many rely on donations - usually distributed as “class sets” so more students can get usage from one set of supplies. School drop out rate is over 70%, and teacher turnover rate is 8 times higher than the national average. Again, “Who on earth would *choose* to be on the Rez - to live there - to *teach* there? And why?”

Well I discovered that I would – because not only did I see these heartbreaking statistics while working there last summer, but I also found a beautifully rich culture at risk of being lost by its own people. I formed relationships with some of the most insightful and purely kindhearted individuals I’ve ever met. Despite all the negative factors in their lives, many of

these people feel they are richer than you or I – because they are richer in companionship, spirituality, and love. Several years ago, I decided my place in education was to teach in an underprivileged school. At the time, I figured it would probably be an urban school due to the local city surroundings of my university, UMSL. Then I went on a service trip with a group of colleagues and friends in May, 2010. The week was lead by a non-profit organization called Re-Member, meaning to re-assemble or repair the relationship between Natives and dominant society. Cultural experiences like Pow Wows, “wisdom of the elders,” dancing, singing, and interaction with crafters were entwined with each work day. That one week wasn’t enough for me. It felt as if someone had left the back door cracked open, and I was only being allowed to glimpse while passing by – then the week was already over and back to St. Louis, we drove.

During the trip, I noticed many of the struggles on the Rez are the same as those found in urban conditions, and to a worse degree in some cases. This was fuel for a couple late night heart-to-hearts with the staff members of Re-Member. I was falling in love with the Lakota culture. Not to mention, after an unrelentingly cloudless and sweltering summer day, I realized you could always count on the twinkling appearance of the Milky Way along with quite a few shooting stars all with the naked eye. And the sunrises – oh the sunrises! It just wasn’t fair that such a beautiful area and residing people were subject to cyclical patterns that prevented most from ever getting out and helping their people. All people face difficult life struggles, whether they regard basic physical survival and social/emotional/spiritual needs, or the more complicated social/emotional/spiritual needs faced by those with the luxury of physical security. Whatever the struggle – I couldn’t see overlooking it in *anyone*. By the time I arrived home, I was realizing my *calling* to return and possibly teach there. So I kept in touch with the Re-Member staff members, applied to be one of their summer staff members, and returned for a month in August.

That was my plan to stay connected with the Rez and the people there until I would graduate and apply to teach through Magis, Creighton University's volunteer teaching program.

No one can look at such a situation and say, "Aha! I've got it! If only X, all their problems would be solved." The Lakotas as well as many other Native American tribes, know what their needs are better than any outside helper, but it's hard to do when you're main concern is the survival of your family and yourself. I understand it is unlikely to find a "cure-all" solution, especially when so many factors play into their stagnating conditions. However, I believe that if the chance of completing a full education can be improved, perhaps this would help many residents of Pine Ridge to be more capable, more willing, and more likely to address some of the larger issues faced by the Lakotas on Pine Ridge.

All this leaves me desiring to find out more about education on Pine Ridge. To start out, I do not know any specifics about the conditions within the schools, or the political structuring of the school systems there. I wonder if the schools are state funded, follow state standards, and participate in state-testing. I know there is one private school system there, which seems extremely effective in integrating the Lakota traditions to the curriculum, so they can still identify as a Lakota. However, I wonder what it's like for the rest of the schools, teachers, and students. There is at least one college – OLC (Oglala Lakota College) – but I wonder how many of the actual Pine Ridge residents attend college. The main question I desire to find an answer for is: *What can I do about the weaknesses in Reservation education and what can I learn, as a future teacher, from their strengths?*

In my search to find more about Pine Ridge education, I plan to read parts of books like "Teaching the Native American Student." This might reveal some common issues with education on reservations in general. When possible I plan to include specific information about Pine

Ridge, from sources such as the South Dakota Education website and BIE (Bureau of Indian Education) website. Educational Journals might include political turning points relating to Pine Ridge or Reservation education in general. Finally, I intend to interview one of my fellow staff members, Nikki, through e-mail. She works for the Oneida tribe in Wisconsin, as an advocate in and for Native schools, as she also works toward her Teacher Certification. Nikki knows some about the Bureau of Indian Education (BIE), a government branch that plays a large role on the Reservations of the U.S.

“It is the mark of an educated mind to be able to entertain a thought without accepting it.”

-Aristotle

While I first planned to read the book *Teaching the Native American Student*, I discovered it cost \$50 that I didn't have, but my search fatefully lead me to find the book *To Remain an Indian*, subtitle – *Lessons in Democracy from a Century of Native American Education*. This was exactly what I needed. It's about the development of Native American education up to this point. While I waited for this book to arrive, I focused on the materials I already had access to. First I wanted to learn about what happened specifically on Pine Ridge, so I turned to parts of Akim D. Reinhardt's *Ruling Pine Ridge – Oglala Lakota Politics from the IRA to Wounded Knee*, which I already possessed.

The historical conditions of Native American schools, plays a huge role in the disposition of students and adults today, and they were worse than I imagined. The boarding schools' forced “assimilation” tactics were absolutely revolting. Imagine you are physically ripped from your family and forced to attend a school where you are never aloud to reveal anything that hints at your “Indian-ness”... I didn't think I'd ever have the motivation to excel in this type of environment. It was thought that separating the students from the root of their influences would

help them assimilate faster. They were brutally punished for speaking their native language, or about native traditions. I found the following descriptions of the experiences at a federal government school on Pine Ridge:

Future Oglala medicine man, Pete Catches, endured punishments such as spankings, soap in his mouth, having his hair cut [*something they traditionally only did to mourn death of a close one*], having sticks put into his ears, being whipped by rubber hoses, being subjected to solitary confinement, being forced to stand for hours on end, being restricted to a bread and water diet, and being forced to wear girls' clothing in public as a form of humiliation, (Reinhardt 65).

Mildred McGaa Stinson recalled the debased living conditions such as being served oatmeal with worms in it, as well as students' letters to home being censored by the administration in an effort to prevent families from discovering the abusive conditions. That censorship included elimination of revealing illnesses, multiple times leading to children dying at school without their parents knowing anything about the illness until receiving news of the death. (Reinhardt 65-66). After reading these passages I needed a moment to collect myself; it was sickening to read such

cruel treatment of children. I felt even more ashamed to be "white" than I had upon learning things during my own time on Pine Ridge. Fortunately I later discovered that there were many cases of teachers who "looked the other way" because they did not agree with the disciplinary actions expected of them (Lomawaima). At the very least that is the type of teacher I'd have been back in those days – more likely I would have taken such stands that would have gotten me fired. But then again, where would that leave me? Not teaching. This was challenging information to ponder. I wondered if current day Reservation teachers had to battle between meeting state mandated standards through curriculum, and incorporating their students' own culture and views.

As I continued reading Reinhardt, I found much of the harsh conditions occurred prior to the Indian Reorganization Act (IRA) of 1934, passed under the guise of giving Indian tribes self-governance and economic self-sufficiency. They were also before the creation of the tribe's constitution, which was formed by the Bureau of Indian Affairs (BIA), a *U.S. branch of government*, and approved by the residents - under the terms of the IRA. This was yet another frustrating piece of the puzzle. At least the obviously inhumane treatments were slowed down, but how could Natives have a chance at preserving their precious culture with so many imposing

factors woven into a false-freedom? Shouldn't a people get to choose what and how their students are taught?

Reinhardt states, "Beyond economy, land tenure, and legal institutions, subtler social factors are also indicative of sovereignty. One important measure is a nation's capacity to educate its own children. Once again, in Oglala [Lakota] society this was a sphere dominated by outside forces, particularly the federal government," (p. 62). During the years of 1934-1946, almost every single child of school age attended schools that were federally funded. The BIA had half of its budget designated for education (approx. \$336,000), while the OSTC (Oglala Sioux Tribal Council) budget had nothing allotted for education. This was clearly unfair, an outrage. It left me wondering how things have changed, or failed to change, for Pine Ridge Reservation education today. So I turned to the BIE (Bureau of Indian Education) website and my coworker from Re-Member, Nikki Blonigen Kornetzke, who works as a native youth advocate for the Oneida tribe in Wisconsin.

What I found on the BIE website temporarily dashed my hopes. The BIE oversees 183 elementary and secondary schools, on 64 reservations in 23 states to date. 59 are BIE operated; while 124 are tribally operated, this is under BIE contracts and grants. The Bureau also funds or operates off-reservation boarding schools. On the college level 2 are federally operated, while there are many tribally operated colleges and universities, about 35. Pine Ridge has OLC – Oglala Lakota College. Basically the elementary and secondary schools are still heavily influenced by the U.S. government. It became clear to me that even though many schools are "tribally" operated, the decisions are influenced heavily by the provider of funding through the form of agreements made in order to receive that money. Just like most situations, the man with the power or money makes the calls.

I turned to Nikki to find more specifics. Since she lives many states away from me, I interviewed her through e-mailing a word document of my questions, then following up later with a couple more questions. She gave me her knowledge of the Pine Ridge Oglala schools and often used Wisconsin's Oneida tribe as a comparison, since she is more familiar with them.

I asked her where the funding for schools on Pine Ridge comes from, and she told me *Pine Ridge is composed mostly of BIE schools and state (Shannon County) schools, which are funded federally, while Oneida is a BIE school, but tribally owned.* I wanted to know the physical facts first so I also asked what the conditions were like within schools. She answered that *it depends on the reservation; Pine Ridge has some tribal schools in need of building repairs while there is some new development, such as the Porcupine School* (Porcupine is one of the living communities/counties on Pine Ridge). It appeared to me that the schools are physically similar to those in any other low economic status area. Physical conditions can have an effect on a child's education, however, there are other factors that are far more influential.

When I asked Nikki what challenges she sees involved with education on the reservation, most of the list was predictable: *funding, lack of resources such as technology, graduation rates, attendance, teachers who lack cultural knowledge/community, and tests for special ed. Tend to be biased.* The last two in particular caught my attention so I asked more about how the tests for special ed. are biased (and found a journal article that spoke about cultural awareness for teachers through a source she suggested – the Journal of American Indian Education). She said *tests given to determine if a child needs special education are most of the time bias in nature. This means that usually the dominant society has developed tests based on the overall society. The tests do not take into consideration culture or language. There is a disproportionate or misrepresentation of Native and African American students in special education. There have*

been court cases involving cultural biases in special education. The Navajo have created their own tests to help determine if there is a need for special education.

I also asked if the schools follow state standards and participate in state-standardized testing, discovering that *Oneida does follow state standards and does participate in state-standardized testing, but test scores are average to below average.* When asked what she thought the biggest disadvantage or struggle for students in reservation schools was, she said *Multi-generational and historical trauma is a huge struggle.* This seemed key to me, and I later found much more out about this in the Journal of American Indian Education and Lomawaima's *To Remain An Indian.*

So far, all the responses had generally enforced what I had discovered in my own research. I thought again: How could students desire to succeed and motivate themselves in a school influenced by so many outside factors that are much less relevant to their own lives and cultural teachings. Then things started to turn a little. Nikki said that *on reservation schools often have culture and language classes for their students, while off reservation Native students are usually not provided with such classes.* Here was an example of a way the reservation schools were beneficial to their students. Finally when I asked Nikki about her input on the resources Pine Ridge has or needs regarding education she made a profound statement. In addition to positive resources such as social services, fitness centers, and cultural heritage and arts programs for Oneida, she said *"The one resource that I believe is priceless is elders. I am a firm believer in trying to incorporate elders into the classroom."* This statement began to guide my interpretation of the rest of my research. Maybe it's not about what the reservation schools are lacking. Maybe it's not about providing them with what they need in order to successfully mirror the dominant

society's schools. Maybe it's about what they *have* that *we don't*, and helping support them in these areas.

The strength within the communities themselves is evident in the documentary *We're Still Here*. A "Save Our Tribal Youth" speaker said "I believe the answers lie in the community. And instead of recruiting these people from off the reservation, to help our people, we need to start with our communities. Make a spark in some people... If you sit and talk to people around here on the reservation, they really do know a lot. They do have the answers that can open up hope."

The struggles stemming from multi-generational and historical trauma, mentioned by Nikki, was a recurring theme in many of my findings. Another speaker in the documentary said "The suicide rate is 300 times the national average... we lost 32 young people in the last 4 to 5 years... it all comes down to self-love..." –Echoes After Woman (Joyce Wheeler). Self-love is something that does not come easily to many Natives. Despite the fact that direct persecution has ceased, there are countless examples of the undermining, and mistrusting, of natives to govern and educate themselves in their own way. The native youth know this; it is subconsciously projected by their parents, educators, textbooks, and other significant influences. It says that Natives are incompetent, inferior. This is something I would have to face if I taught on a reservation. I would need to prepare myself to encounter and dispel these notions in many of my students.

In Linda Van Hamme's article *American Indian Cultures and the Classroom* from the Journal of American Indian Education, there are examples of the start of success in Indian-controlled schools – that place emphasis on Indian cultures and the rejection of materialistic American values. Such schools include Rough Rock Demonstration School on Navajo

reservation, & Yellow Thunder Camp in the Black Hills of South Dakota, adjacent to Pine Ridge Reservation. While the process is unfortunately affected by poverty, inconsistencies in federal financial support and interference of the BIA, the efforts are extremely promising for the future of Indian education (Hamme). As a future teacher, and quite possibly counselor on Pine Ridge, I can look to such schools for examples of how to successfully empower my Lakota students.

The issues with many schools is that current Indian education is still characterized by a curriculum that is presented strictly from a Western (European) perspective, which ignores the cultures and values of American Indians, resulting in academic failure and high dropout rates. This contributes to the struggle to achieve self-confidence, as a Native. Hamme points out, “Including Indian cultures in the curriculum as though they were only history and religious rituals (both of which are very important but not the whole story) implies that Indian values and practices have nothing to contribute to the modern world.” This is important to keep in mind when choosing materials to use while teaching Native students. Another way that current education fails to adapt to Native Americans is the way in which it is presented. Hamme states that “Natives tend to have different learning styles that clash with dominant educational ways, but could prove beneficial if catered to and allowed to succeed.” They tend to be more about visual observation, imitation, and direct experience with the world. This directly relates to the teaching of many subjects. It has been seen as a weakness in their learning, yet current teaching thoughts are reflecting more and more emphasis of such methods as direct hands-on experience for students. They also tend to be “whole concept learners,” rather than starting with minute details and building to the “bigger picture.” Description of their learning styles include cooperative, reflective, and valuing silence and non-verbals. These are all things that can cause friction in the traditional Western education styles of America. However, current education styles

are starting to realize that cooperative methods can actually provide higher level learning opportunities for students with better retention, rather than being concerned with *cheating*.

Regarding education, one of the most influential statements in *To Remain An Indian* is the opening quote: “Each and every [Lakota] parent was a teacher and ...all elders were instructors of those younger than themselves... We learned by watching and imitating examples placed before us. Slowly and naturally the faculties of observation and memory became highly trained. ...The training was largely of character...and continued through life. True Indian education was based on the development of individual qualities and recognition of rights,” (Luther Standing Bear). This is a great example of the important value in using elders as a resource for Native youth. Again I thought – We should be learning from the Native way of thought and education, rather than trying to suppress their ways and bring them “up” to the dominant ways.

“America can be revived, rejuvenated, by recognizing a native school of thought. The Indian can save America.” –Luther Standing Bear (Lakota)

Searching for information about Reservation Education has been an enlightening experience, building upon my previous experience on Pine Ridge. I have learned while many of the circumstances are unfortunate, there is hope. There are many examples of successful preservation of Native culture and schooling. Much of what I found supported my original instinct that answers lie within the Native communities themselves - they know best what they need, but I expected such answers to be more concrete. It was surprising how extensive the influence of dominant society still is, contributing to the deterioration of Native culture. But what surprised me the most was how abundant the valuable resources are in Native education, the ones that are often overlooked, regardless of the lack of many concrete resources. So often we focus on the material ways a group is lacking. It may seem that Native schools are extremely

underprivileged, but in reality many have unique views and recourses that could transform both education and society in general. Rather than centralizing the concern for Native youth education on what they physically need to succeed, according to dominant standards, it should be centered around helping them to obtain the freedom to sovereignly educate themselves – incorporating modern day examples of the relevance of their culture – as only they themselves can do.

The information discovered in this search will guide my approach as a teacher on a reservation. Knowing where the students come from historically and currently makes will make it a little easier to understand any struggles my students may have, whether they pertain to the subject I'm teaching or an outside life issue. I realize that I've only scratched the surface of the complex aspects of reservation education. The concept of education itself is complicated and throwing in a culture different from the one I was raised in, only adds to the complexity. Nevertheless, I feel like I have a good base of information to start with. I know where I'd like to turn if I need to find further information. However, nothing can compare to directly working with my students. Just like teaching in any other school, you can theorize about with you could, should, and will do in certain situations, but the actual experience is what truly forms how you fill your role of being a teacher.

Lastly, the information I've discovered is not only vital to the survival of Native cultures, but perhaps to the progression and improvement of education in general. I believe the educational community can learn from the cooperative and reflective tendencies of Native peoples. There is a wholesome aspect found in the respect of elders and the value of the knowledge only they can pass to the youth. American education and society could benefit tremendously from these aspects of Native Culture.

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