

SOME THOUGHTS ON PASSIVE RESISTANCE TO LEARNING

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Abstract:

The education community knows that improvements can and must be made for the mathematics education of underrepresented groups. Native American schools, in particular, have struggled due to colonialism, racism, and the mistaken notion of members of the dominant society that Native people wish to be assimilated. In fact, sovereignty is a huge issue for Native people across the country; it is an especially sore point in our state, where a 1981 land claims settlement act clouded rather than clarified Native sovereignty. Mathematics education has learned a tremendous amount through the pioneering academic work done in ethnomathematics. We also know that so many others are doing the good work daily, impacting children's lives, but never receive recognition beyond the walls of their classrooms. We are learning about the positive difference of a Culturally Appropriate Curriculum and finally, we are learning how to respect Native America. This is a preliminary paper that intends to open a discussion on the challenge of passive resistance to education in a Native American school in the eastern United States.

INTRODUCTION

Mathematics education in "our" reservation school, we hope, is making strides toward improvement. Despite the fact that we failed to meet adequate yearly progress in middle school mathematics for the 2005-2006 academic year according to our standardized state assessment test, we feel that an optimistic look to our future is not unwarranted. We are "getting real" (Kitchen, 2003) about mathematics education reform with a new curriculum, an increase in the number of highly qualified middle school math instructors, a strong focus on mathematics across all content areas and at all grade levels, and a continuing partnership between the school and the state university's mathematics department. The voices in this article are from the "outside," a university mathematics educator, and from the "inside," a classroom teacher.

LOOKING IN FROM THE OUTSIDE

This school's Comprehensive School Reform Plan (CSRP) included the support of numerous consultants, one being the university mathematics educator co-authoring this paper. During the 2005 - 2006 academic year (this work will continue at least through the 2006-2007 academic year) , the co-author spent two days per week at the school visiting classrooms,

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observing instruction, acting as a resource and consultant for teachers, attending faculty/staff meetings, and helping organize the first-ever Math Night for the community. He taught a mathematics course for university credit, on-site at the school, during each of the semesters.

TRUST

But if the fieldworker expects to engage in some variety of participant observation, to develop and maintain long-term relationships, to do a study that involves the enlargement of his own understanding, the best thing he can do is relax and remember that most sensible people do not believe what a stranger tells them. In the long run, his host will judge and trust him, not because of what he says about himself or about his research, but by the style in which he lives and acts, by the way in which he treats them. In a somewhat shorter run, they will accept or tolerate him because some relative, friend, or person they respect has recommended him to them. (Wax, 1971, p: 365)

I gained entry to this tribal school through someone I knew: a university colleague who introduced me to the school's curriculum coordinator. The coordinator then took the "chance" of introducing me to the school. I am well aware of the history of research in indigenous settings, and I understand what Smith was referring to when she wrote about research: "when mentioned in many indigenous contexts, it stirs up silence, it conjures up bad memories, it raises a smile that is knowing and distrustful" (p. 1).

As the outsider, I realize as Lincoln and Guba stated in 1985 that trust is "something to be worked on day to day. Moreover, trust is not established once and for all; it is fragile, and even trust that has been a long time building can be destroyed overnight in the face of an ill-advised action." (p.257). I am keenly aware that others who preceded me in this particular school are either welcome to return or are not. The list of individuals who are not welcome is well understood within the school's leadership and faculty ranks, and there is no hesitation to name names and give reasons. The co-authoring of this article is but one artifact offered as evidence that trust exists and continues to develop.

SCHOOL LEADERSHIP

School leadership has taken on many forms in the past. For a period of about five years there was a new principal each year. Folklore within the school suggests a complete lack of leadership with many of the faculty operating as autonomous units for several years. This autonomy extended to decisions regarding curriculum, student failure/success, and discipline. The school has leadership now that has been in place for over two years, and change is obvious. There is no resistance to reform on the part of the leadership team. External funding is actively pursued through the district office, relations with the Bureau of Indian Affairs exist positively, and decisions are made based on the effect/affect of the students. The leadership team has championed professional development opportunities for faculty and staff within the school but has also opened their doors for teachers from surrounding communities to participate.

In the fall of 2005 a mathematics topics course in algebra was offered on site at the school. For many in the course, this was the first mathematics content for decades. Let's face it, many in-service teachers do not return to University for more credits in mathematics or to pursue graduate programs in the content area. As a mathematics educator teaching this course, focus was on the content, but secondarily we as a class considered what the expectations for our students were, based on the Maine Learning Results. We had rich

conversations about pedagogy and curriculum. Many of the teachers highlighted requirements and expectations of the students in this Native school that did not fit the children's reality. As an example a released item from the Maine Education Assessment dealt with dog pens, on the reserve family dogs do not live in pens. Generally speaking, the animal is secured to a lead that is attached to some fixed structure. How, then, were students to make sense of the concept of a "dog pen" when such a thing does not exist in their world view? Another released item focused on comparative shopping, looking for the "best deal." There are two stores within twenty miles of the reservation. When shopping is done, purchases are based on need, not on comparisons. The nearest city that has multiple shopping opportunities is two and a half hours away.

The second semester course focused on geometry. Since our state has a laptop initiative (meaning that all seventh and eighth graders have laptops available to them during the school day), the school purchased a site license for Geometer's Sketchpad®, and that became the delivery mode for the course. We explored many new ideas in Euclidean geometry afforded through this dynamic software. Worth noting here is who enrolled in this course: the school secretary, the kindergarten teacher, the guidance counselor, the fourth grade teacher, a special education teacher, and the assistant principal, as well as all of the middle school teachers. As members of the course reached a comfort zone and could use the program with relative ease, which occurred about four weeks into the semester, the software was loaded onto student laptops. This learning tool is now being woven into the middle school mathematics curriculum, and the broad range of faculty and staff who took the course means that any child with a laptop can seek assistance from almost any location in the building.

The culmination of the course was the first-ever Math Night at the school, and the entire community was invited. With the aid of class participants and the co-author, students, aunts and uncles, parents, grandparents, and siblings explored translations in transformational geometry, creating unique tessellating shapes on a sheet of newsprint. The newsprint was then colored with fabric crayons, and the colored sheet was placed on a T-shirt and ironed. The results were original mathematical pieces of wearable artwork. "Can we have Math Night again?" was heard a number of times from students. We were not expecting so much enthusiasm for mathematics; everyone went home that night feeling good about the excitement of the children!

LOOKING IN FROM THE INSIDE

For the past two years, we have had a stable administration that has done much more than stress professional development; it has provided us with opportunities. During the 2005-2006 academic year, the co-author of this article was available two days a week as a mathematics consultant and one night a week as the instructor of college-level mathematics courses. Teachers and staff at all levels have taken these mathematics courses, and our "final project" – Math Night – was a resounding success.

Native Americans across the country have learned to regard outsiders who come onto reservations to "study" them with distrust. It is no different on our reservation, which is small, has a state highway running smack through the center of it, and is close to a tiny city that has historically been a repository of bad feelings toward its Native American neighbors. My co-author did not swagger onto our campus and tell us what we needed to do for our students. Instead, he sat quietly in our classrooms and watched, ate lunch with the kids, and listened to what we had to say. He was clearly more interested in helping us than in trying to get us to conform to an outside standard of what instruction should be. This is, in every sense of the word, a community school, and my co-author's experience with Native

students and his understanding of Native culture have endeared him to some of the elders who come to our school to sit in the office and help answer phones, have coffee with the staff, and eat lunch in the cafeteria with the children. His easy manner and obvious enthusiasm for being in the school have allowed a real sense of trust to develop between him and the faculty and staff. And the kids just adore him.

Throughout the year, our students have consistently been both amazed and amused to see their teachers and other staff struggle with "homework" just as they do. They are seeing us in a new light: we are no longer merely those adults who talk at them all day; we are learners, too. This has opened up many interesting dialogues in the classroom, giving us valuable insights into how our students view their own education. As this interaction continues, we hope to listen carefully and give our children the skills they must have if they are to succeed. We are certainly more aware of our own needs as learners – and of our own responses to and struggles with content.

As much as our skills as educators are improving, though, we still face the challenges of teaching at a reservation school. Our students are well aware that they are surrounded by a society that neither shares their cultural identity nor particularly values their heritage. They do not see themselves reflected in national media; they do not hear voices like theirs in popular music. They can't even be found in school textbooks – our new middle school reading texts feature lots of African Americans and tons of Hispanic Americans, but the only Native Americans in its pages either lurk in the woods to menace poor Christopher Columbus (who, as we all know, "discovered" America) or dutifully aid European settlers. Despite approximately four hundred years of contact here in the eastern United States, the reservation remains a place apart, separated from the dominant culture by the remnants of historical distrust that goes both ways.

Our state has made some inroads in trying to remedy this situation. State Law LD 291 requires that local "Native American history and culture be taught in all elementary and secondary schools." It also requires the state's Department of Education to include local "Native American history and culture in the system of learning results" (thus making Native American history a requirement of assessment under No Child Left Behind). The bill also establishes "a commission to investigate and recommend how the Department of Education will accomplish this task" (<http://janus.state.me.us/legis/LawMakerWeb/billtextsearch.asp>)

Readers may be familiar with similar legislation in Wisconsin. From the Wisconsin Department of Public Instruction website, Act 31 is "a mandate requiring K-12 teachers to teach about Native American history and treaty rights." This 1989 act was a response in Wisconsin toward developing understanding of treaty rights. It does not, however, mandate that Native American history be included as a requirement of assessment. Other states are making strides toward recognition of and education about local indigenous populations, for example Montana, North Dakota, and South Dakota, but we have not been able to find any other state that includes assessment of learning.

Because of this new state law, the high school closest to the reservation – the one a large percentage of our students attend when they leave our K-8 school – is adding a course on Native culture taught by a member of the tribe. The effects of this course and others like it will take a while to be felt, but we must be optimistic that the end result will be a lessening of the racism our children meet and the estrangement they feel when they venture off the reservation.

So, with a hopeful eye to the future, I take readers back to the present reality of teaching in our school. Perhaps the most difficult challenge we face is the student who does not engage. We can learn our content areas backward and forward. We can model until the cows come home. We can pour our hearts and souls into lessons we hope will captivate and motivate. But there are some students who will refuse for some reason to allow themselves to be caught in our well-crafted webs.

I see these students in my classroom every day. For the most part, they aren't the "behavior" kids. They don't qualify for special services. They are otherwise capable, personable children who often score at or above grade level in math and reading as measured by the computer-accessed testing done in the school in the fall and again in the spring.

What is happening here? Are we teachers failing these students or is American education in general failing them?

Last year, I was a reading and language arts teacher. Fifth and sixth grade reading programs exist, but in my seventh-grade reading class I was on my own. I developed a book list consisting almost exclusively of books written by Native authors, for Native students, and available exclusively from a small company on the West Coast. I never would have known about this resource if I hadn't complained one day to a friend from the university's Native American Studies Department that I couldn't engage my reading students. But now, after achieving Highly Qualified Teacher status for middle school math, I am tasked with seventh and eighth grade mathematics. I can't give that same seventh grade a mathematics text that is relevant to their culture. Nor can I find a good American history text that honestly reflects the history of Native people in this country. Why should it matter? Math is math. History is fact. But maybe not. Maybe math isn't math if your culture has an entirely different way of looking at quantity and measurement. Maybe history isn't fact if the bright lights of your people are overlooked and denigrated.

Maybe some of our most intelligent students are smart enough to see the future ahead of them if nothing changes for indigenous people. Maybe they're refusing to play the education game because they think it will turn them away from their culture. Will I still be Native, they might be asking themselves, if I learn this stuff from off the rez?

I don't know the answers. That's why this project could be so important to us. We need to talk to the students, listen to what they say, and use what we learn to change our pedagogy so that it effectively engages all students. Otherwise we could continue to lose some of our most promising children, and no Native group can keep bleeding children and survive.

STUDENT RESISTANCE TO LEARNING

There is an abundance of literature on student resistance to education (Ganzel, 1998; Garber, 2000; Saunders & Saunders, 2002; Alpert, 1991; Coladarci, 1983; Kitchen, 2003; Raffini, 1986; Moore, 1997; Dehyle, 1992). The realm of training realizes challenges in their environment as do K - 12 educators; "one resistant learner can ruin your day. Two or three can make you wonder if you chose the right career" (Ganzel, 1998). We are not challenging the assertion that "...Teachers are not as prepared to deal with students who resist learning yet seem to have the ability to do well in school and apparently choose not to complete assignments or participate in class activities, consequently choosing to earn failing grade" (Garber, 2002, p. 1), but read this with an eye toward an alternate view: maybe some students are victims of structural issues of which they have no control. We agree with D'Ambrosio (1997) "The important point is to create a learning environment in the classroom in which the teacher recognizes that the student has preexisting knowledge,

mainly knowledge based on cultural practices. The classroom is a place for the teacher also to acquire knowledge" (p. 246).

Consider a faculty discussion focused on mathematics education during the teaching of the two mathematics courses. The conversation was focusing around accommodations in assessments for children which then quickly turned to the children that "could care less" about their mathematics learning.

R²: "There are um, what's the word I'm looking for, there are adjustments that can be made for students who are labeled as ESL or as special ed or whatever that you can read the math problems to them. I mean to me these are reasonable things for an eighth grader to know. The problem comes with students who have no interest in learning and no interest in becoming educated to an eighth grade level and then that's where the pressure gets turned on me. As a math teacher I have a bunch of students who could care less about percents or fractions or any of this. Although I do think this is a reasonable expectation for them with particular students I don't feel like this is a reasonable expectation for me as a teacher."

R: "Well if I'm understanding you correctly you're saying the same thing we all worry about, the fact that no matter how well you teach if someone has no interest in learning what you teach they're probably not going to learn it at a level you want them to. The old lead a horse to water bit."

R: "However there are children who are bright who choose to be bored. They choose not to engage."

R: "Even if that is something that is very interesting and they normally might find it interesting, they still can choose to stand back and be cool and not engage with the activity" (Field notes, fall 2005).

From a multicultural education perspective, which we use in considering mathematics education of our students, D'Ambrosio (1997) reminds us that

"Multicultural education can be successful and give more than lip service to equity and diversity if it recognizes that the practices and perceptions of learners are the substratum on which new knowledge is built. Thus it has to be constructed on the individual and cultural history of the learner and has to recognize the diversity of extant cultures that are present in specific communities" (p245-246).

We hypothesize that a contributor to caring less about learning mathematics has to do with the fact that new knowledge is not built on the existing knowledge of these Indigenous youth. Certainly textbooks are not responsive to local contexts, which we interpret as an educational barrier.

Dehyle (1992) reminds us to consider what barriers our education institutes create, from her work with dropouts, which is frequently "defined as an issue of individual failure" (p. 24). Moore (1997) discussing her undergraduate students: "Resistant students refuse to engage in the content of the course. The consequences, in terms of what students get out of the course and distraction they represent for other students as they attempt to garner support for their resistance, can be substantial" (p. 128). Raffini (1986) speaking to evaluation and norm-referenced examinations offers: "Ironically, one of the problems may be that many students are *not* willing to accept mediocrity, choosing instead apathy and even failure rather than 'average' or 'below-average' performance" (p. 53). Raffini (1986)

² Each R is a new voice in a conversation held with faculty and staff.

continues: "When students see school as a threat to their self-worth, some are forced to choose apathy and noninvolvement as a defense" (p. 53).

Maybe Alpert (1991) was correct: resistance is a product of "teaching approach" (p. 351). Alpert suggests "student resistance is likely to appear in classrooms where academic subject-matter knowledge is emphasized by the teacher and a recitation style is typical of classroom language interactions" (p. 351). We know, as D'Ambrosio (1990) so poignantly stated, that "Science and mathematics education means action. Simply accumulated knowledge in science and mathematics, which easily falls into rote learning, comes closer to history than to true science and mathematics" (p. 375).

Coladarci (1983) reporting his findings, "One should interpret these data cautiously, (p. 17)" of Native American dropouts found the following that we see as pertinent to the resistance we are trying to understand. (Many of Coladarci's 1983 findings were replicated by Dehyle's research in 1992.) The sense that teachers do not care about students found by Coladarci (1983) was also reported by Dehyle (1992), "Navajo and Ute school leavers felt their teachers did not care about them" (p. 28). More encouragement from teachers was cited as a need by Coladarci (1983), and Dehyle (1992) quoted one of her subjects:

I didn't care to finish high school. It was not that important. You see, I was just learning the same thing over and over. Like the teachers didn't expect anything of you because you were an Indian. They put you in general education, basic classes, and vocation. They didn't encourage college bound classes. (p. 33)

One more consideration has to do with school content. Coladarci (1983) had a data point that "might represent the perception that the curricula did not adequately embrace Native American culture" (p. 20). We are aware of this fault in the curriculum and embracing new ways to be responsive through ethnomathematics: "As a pedagogical programme, ethnomathematics stems from love, respect and solidarity for children and for adults: respect for each person's differences and solidarity with their needs" (D'Ambrosio, 1990, p. 369).

The school's two culture teachers are rich sources of information of how "we" the collective teaching community can and should be making curricular differences for the students. As Raffine (1986) states: "...if our goal is maximum effort from *all* students, then our educational system must demonstrate to all students that increased effort *can* result in success (p. 55)" and we expect the increased effort on the part of faculty, staff, and administration will result in student success.

TOWARDS A SOLUTION

We are ready to accept the challenge offered up by Garber (2002) when she stated:

Teachers often do not want to hear what resistant learners think about teaching and learning, maybe because they are fearful of what they might hear. As Cuban (1989) said, "The two most popular explanations for low academic achievement locate the problem in the children themselves ('they lack ability, character, or motivation') or their families ('they are poor, lack education, and don't teach their children what is proper and improper in the dominant culture') instead of considering the role of school culture or the structures of the school (p. 781)" (p. 4).

We are striving toward letting "students' motivation to do mathematics grow out of the natural cultural environment. Mathematical explorations should be generated by discussions among the students" (D'Ambrosio, 1997, p. 247). We want to hear what our resistant learners think about teaching and learning. It is important for us to hear how our students perceive the school structure and culture and what we as responsive educators can and must do to engage all our students. "The clear edge that the teacher most often has over the student should be adapted into a congenial partnership, building up into positive self-esteem for the student, and should never reflect an arrogant, imposing, authoritative attitude, which does no more than reinforce negative self-esteem" (D'Ambrosio, 1990, p. 375). To that end we await research approval to begin the interview process.

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