Place-based Education

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tudents have trouble finding meaning in decontextualized one-size-fits-all curriculum and instruction that does not relate to their cultures and homes. The best way to contextualize education is to relate what students are learning to their heritage, land and lives. While students need to learn the knowledge and skills codified in state standards, they also need to have some choice in what they read and what type of learning projects they can become engaged in.

is the criticism of teaching that focuses on test preparation and memorization, which can lead to school dropouts who give "boredom" as the leading cause of their leaving school.

Back in 1928 the Meriam Report, an investigation of the U.S. Government's Indian Office, noted that in some Indian schools children were forced to "maintain a pathetic degree of quietness" (p. 332). In the 1933 edition of his How We Think John Dewey called on teachers to engage

teaching methods that build on students' background knowledge and engage their interest. The active learning strategies that Cummins and others advocate would go far in getting students motivated to come to school, learn, and stay to graduate.

The "project method" was used successfully with Indian students in the 1930s and 40s in South Dakota. In Fundamental Education in an Amerindian Community published by the Bureau of Indian Affairs in 1953 and printed by Haskell Indian School students, Pedro T. Orata described how the Bureau in the 1930s consulted with the community and worked to make the curriculum more relevant to students' lives at Little Wound School in South Dakota. At that time, community concerns could be as simple (and as important) as locating outhouses away from drinking water supplies. On the Navajo Reservation developing water sources for livestock was a major concern.

American Indian education has been criticized for being too vocational and slighting academics in the past with racism being seen as a factor that lowered the government's expectations of the academic potential of American Indians. However, the Director of Education for the U.S. Indian Office from 1936 to 1952, Willard Beatty was himself a graduate of a model vocational high school in San Francisco saw the value for everyone of a challenging curriculum that combined academics with vocational education.

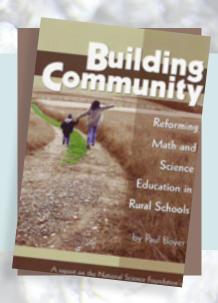
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A 2006 report on the National Science Foundation's Rural Systematic Initiative notes that "Place-based education strengthens communities" and is "inherently interdisciplinary and project-based, it builds on local resources and expertise without great cost" (Boyer, pp. 114-115). This idea of teaching students about their specific locality and its people and their cultures and languages is not new. Neither

their students in "constructive occupations" or "projects" that engage students' interest, have intrinsic worth, awaken curiosity, and are carried out over an extended period of time (pp. 216-217). These projects should integrate as many of the basic subjects taught in schools as possible. More recently, University of Toronto researcher Jim Cummins (1992) identified culturally appropriate experiential and interactive

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Place-based Thematic Units Incorporating Projects Incorporating Math and Science

The exploitation of natural resources on reservations through coal mining and other extractive industries, Indian gaming, and a host of other issues facing American Indian Nations can become engaging projects for Indian students to study. For example, the dependence of the Hopi and Navajo Nations on the strip mining of coal for a large portion of their budgets along with its impact on their land and water resources can be a topic for study. Projects involve an integrated approach to the various subject areas so that a unit on Indian gaming could involve probability in math as well as a study of its economic and social effects.

Considering the environmental concerns currently facing us locally and globally, one possible topic for a thematic unit that integrated science, mathematics and other school subjects would be a unit on oil. The recent oil spill in the Gulf of Mexico in conjunction for some politicians call for "drill baby drill" could help spark students interest in this topic. Such a topic for a thematic unit would be particularly relevant if the students' tribe, like the Osage in Oklahoma and the Navajo in the Four Corners Region, numbered oil among their natural resources.

In regard to science, especially geology, topics for students to study more in depth include how oil is formed, where it is found, and whether we have reached, or are rapidly approaching, "peak oil" production and thus need now to rapidly develop alternative

energy sources. In regard to economics, how oil is pumped, refined, distributed, and used along with why oil prices rise and fall are important subjects of study. In addition students could study the environmental impact of oil production, ethanol production, and the burning of gasoline. The film March Point made by three Swinomish teenagers documents some of the effects of having a large oil refinery near their reservation in Washington State (see http://www.pbs.org/independentlens/marchpoint/)

A teacher can connect a number of subjects into a thematic unit on oil. The Osage in Oklahoma were both blessed and cursed with oil wealth. Some were killed to get their riches and the Federal Bureau of Investigation in the 1920s was able to solve some of these murders. Maria Tall Chief's family moved to Los Angeles and used their oil money to give their daughter ballet lessons, lessons that led her to become a world-famous ballerina.

Not only individual Indians have benefited of mineral royalties. Today, the Southern Ute are one of richest tribes in the U.S. because while they lost much of their land to allotment in what was left of their reservation, they retained the mineral rights and natural gas was found in enormous quantities, which is shipped today by pipeline to Los Angeles and other places. Based on mineral royalties and investments the Southern Ute Indian Tribe's Growth Fund approaches two billion dollars in value.

While environmentalist are calling for a radically decreased usage of fossil fuels, many tribes depend on oil, gas, and coal royalties to operate their tribal governments and employ tribal members. Some of the first tribal governments, including the Navajo tribal government, were first set up by the U.S. Government's Indian Office, now the Bureau of Indian Affairs, to sign mineral leases, but often these leases seriously undervalued what was being sold. Twenty-two tribes formed the Council of Energy Resource Tribes (CERT), a Native OPEC, in 1972 with Peter McDonald, leader of the Navajo Tribe, as its first chairman. It now has over 50 member tribes in the United States and Canada.

Whether it is getting students to study issues related to oil, salmon, Indian gaming or some other locally relevant issue, there are many ways that creative teachers can put before their students a cornucopia of issues for their students to pick projects from that can get them reading and writing and learning more about science, mathematics, history, economics, the arts and other subjects. *

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