

Cultural Fire: Passing the Tradition

Institution: Redlands Community College, El Reno, OK

Faculty member: Julie Flegal-Smallwood

Student Learning Outcomes

- Conduct interviews with indigenous and non-indigenous ranchers to explore roles and practices of fire use
- Compare and contrast historical and present day fire use practices
- Present project findings to elementary-aged students

Student Activities

- Students interviewed 5 individuals (4 indigenous, 1 non-indigenous). Interview questions included: 1) How did you learn about fire use to manage your land? 2) Who taught you how to implement fire practices on the land? 3) Why do you think fire use is important? and 5) How do you think fire relates to sustainability practices?
- Students also conducted Matchstick Forest Model experiments.
 - https://idrange.org/wp-content/uploads/2017/06/Matchstick_ForestDemonstration.pdf
- Students presented findings to elementary-aged students using developmentally-appropriate language.

Assessments

- Coding rubric – How well did students match the interview data with the principles learned in class?
- Matchstick model implementation – How well did students build the models?
- Presentation rubric – How well did students present their findings to elementary-aged students using developmentally-appropriate language?

Connection to the 4DEE Framework

- In class, students learned about the prairie ecosystem and the effects of fire use
- Students applied ecology practices by making observations and connections about oral history data and science principles learned in class.
- Students designed matchstick forest models to assess fire effects using different parameters
- Students communicated ecology to elementary-aged students using developmentally-appropriate language
- Through interviews with indigenous and non-indigenous ranchers, students explored ways in which humans shape and manage land resources

Emerging Themes

- Tribal ranchers use fire as a traditional practice (“this is how my family has done it”)
- Tribal ranchers do not necessarily understand the science of fire use and its effects, but they do understand that it works as a land management practice and is beneficial (“My cows liked it after I burned it off”)
- Undergraduate students served as a conduit to pass on fire knowledge to elementary students who were not necessarily tribal students

Future Plans

- For the Fall implementation, Julie is considering using Q-Sort methodology to assess attitudes on a scale