Community-Based Research on Climate Change and Water Resources at Keweenaw Bay Ojibwa Community College, Michigan

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Keweenaw Bay Ojibwa Community College (KBOCC)

- Established 1975; fully accredited in 2012
- Enrollment typically near 100
- Five Associate Degree programs
  - Anishinaabe Studies
  - Business
  - Early Childhood Education
  - Liberal Studies
  - Environmental Science

Historically focused on teaching, not research.
• I am the only full-time instructor
• Enrollment: 6 students in 2011; average 20 since 2012
• 8 graduates since 2012: All are now employed full-time at NRD
• 6 more poised to graduate this year
My research checklist

• Tribal Council & college IRB approval
• Recognizing, incorporating, and following Ojibwa values
• Curriculum development/enhancement
• Community engagement throughout the entire process
  • Assembling “the think tank”
  • Identifying needs
  • Community participation in actual research
  • Outreach/education
  • Informing policies/management
  • Providing tangible community benefits or services
  • Communication of findings
Climate change research

• Mixed-methods: interviews and surveys
• Total funding: $20,500.00
• 9 paid student assistants
• 10 conference presentations
• Interview findings published in *Tribal College and University Research Journal* (2016)
• Survey findings in preparation for *Climatic Change*
Water resources research (part 1)

- Comprehensive stream temp monitoring program
- Total funding: $85,000.00
- 12 paid student assistants
- 8 conference presentations
- 2 pending capstone projects
Water resources research (part 2)

• Community interviews
• Objectives: insight on traditional cultural significance of water, views on contemporary values, identifying concerns, and assessing views on conservation
• Total funding: $5,000.00
• 2 paid student assistants
• 1 pending capstone project
Water resources research (parts 3 and 4)

Aquatic invasive species program
• Partnership with our NRD (paid internships)
• 3 students participated; 1 pending capstone project

Water quality sampling program
• Partnership with our NRD (paid internships)
• 2 students participated; 1 pending capstone project
Mercury research

Michigan Technological University ASEP project
• “Atmosphere surface exchangeable pollutants”
• 4 paid student assistants
• 3 conference presentations
• 3 capstone projects

Salish Kootenai NARCH project
• 1 paid student assistant (to date)
• 1 conference presentation
The common theme: Student engagement

- Hands-on research experiences
- Assistantship salaries
- Internship credits
- Foundation for capstone projects
- Conference presentations
- Manuscript co-authoring
- Networking with professionals & academics
- Job placement (getting their “foot in the door”)

Conclusions

• Research provides countless benefits to the community, the college, and my department, and my students

• Students are more engaged in their STEM studies and in the community! They are also financially supported and better-prepared for transfer or employment

• This is all possible through grant opportunities and partnerships with agencies, other institutions, and other KBIC departments

Thank you!

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