

# **Looping Linear: The Construct of Research Knowledge and Application within Tribal Communities**

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**“The Art of Looping Linear,” is my metaphorical depiction between a Western educational process and American Indian people.**

- Looping linear
  - Forward progression
  - Adding dimensions
  - Revisiting and enriching basic ideologies
  - Coming full circle



# Unmasking Ideologies

- Cultural differences, autobiographies, and political complexities complicate human relationships and at the same time fascinate us. Our ideologies create the lens that we use to view the world. They translate into our:
  - Language (verbal & non-verbal),
  - Social habits,
  - Cultural associations, and
  - State of being...self.



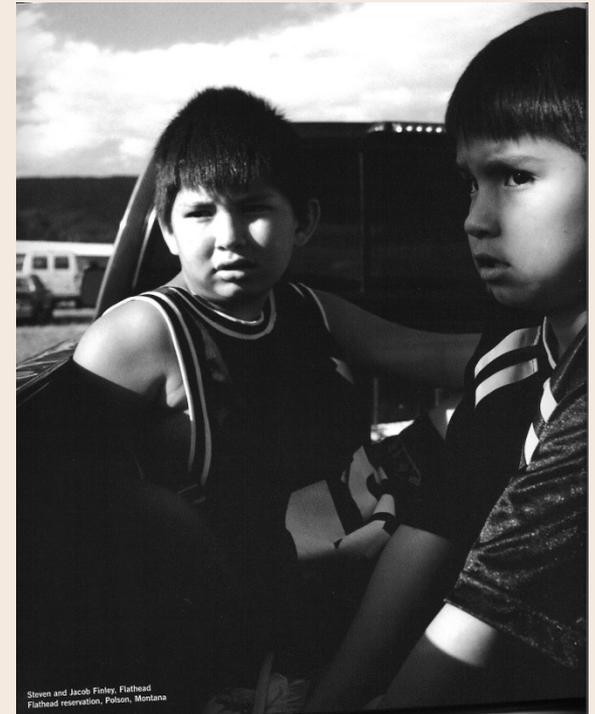


# Western and Native Science

- Western Science
  - Compartmentalized
  - Non-contextual
  - Based on physical evidence
  - Accepted as standard
- Native Science
  - A life way, not a separate study of life
  - Ecological, contextual, holistic
  - Based on a history of understanding
  - Global philosophy that everything is related

# The Challenge

- The norm of American Indians as scientists is not significantly perceived among the general population, and within our population; the ideals of being a scientist are even less likely.



# Current Trends

- In 2005–06, Bachelor's degrees awarded to American Indians/Alaska Natives represented 6% in Health Professions and Clinical sciences, and 4% in Biological and Biomedical sciences.
- Master's degrees awarded to American Indians/Alaska Natives represented 10% in the field of Health Professions and related Clinical Sciences.
- Doctoral Degrees awarded to American Indians/Alaska Natives represented 8% in Biological and Biomedical Sciences.



# Looping Linear

- **Crossing Borders**
  - Beyond Geography
- **Crossing Boundaries**
  - Integrating Culture
- **Brokering Skills**
  - Integrating Western and Native Science and Culture
- **Building Bridges**
  - A Meeting of Minds



# Building Research Capacity at Tribal Colleges and Universities

A Cohort Model

# Student Cohort Model/Community





# Crossing Borders

- **University of Nevada, Las Vegas**
  - **Graduate School of Public Health**
- **Tribal Colleges**
  - **Bay Mills Community College, Michigan**
  - **Fond du Lac Tribal College, Minnesota**
  - **Fort Peck Community College, Montana**
  - **Stone Child College, Montana**

## Specific Aims

- **Create a partnership with tribal colleges that will increase the number of Native students entering public health professions.**
- **Provide accessible, comprehensive coursework that will prepare students for bachelor and master degree programs.**
- **Provide a research experience from classroom to field, based upon a Community Based Participatory Research foundation**



# **Crossing Boundaries: Foundations of Public Health**

- **The curriculum focused upon broadening the understanding and applicability of Western models of science and public health in tribal communities.**
  - **Grounded in the core functions of Public Health.**
  - **Coursework and activities designed to build skills in inquiry, surveillance, and data gathering.**



# Culture and Context

- Using culture as a way to reflect history, context, and environment.
- Context included
  - Historical trauma and the consequences,
  - community views of chronic illness and how they came to be and
  - environmental indicators of prevention and illness.
- Societal indicators:
  - Understand social injustice and inequalities.
  - Placing health in the context of history, politics, and policies.
  - Provide a forum to frame chronic illnesses as health disparities in tribal communities.



# Building Skills

- Learning what our capabilities are
  - How we can make contributions that are unique and valuable
  - How we can work in groups without being exclusive of others
- The need to acknowledge history of Native people.
- Knowing down deep we don't have all the answers (even if we think we do!)
- Practicing 'oppositional defiance' by questioning dominant status quo of 'the way of doing things'
- Deepen our consciousness about context, culture and science







# **Building Bridges**

- **Tribal Communities**
- **Center for Disease Control and Prevention**
- **Indian Health Service**
- **National Institutes of Health**



# **Native American Haunting Suicide on the Fort Peck Reservation**

- **Did all suicide victims on Fort Peck Reservation Suffer from Historical Trauma?**
- **Is so, how does it have an effect and how strong is the influence?**
- **Is there a way to alter affects of historical trauma to reduce suicide?**



# **Water Consolidation Issues**

## **Stone Child College**

- **Assure water quality**
- **Assure communication among tribal members.**
- **Increase water conservation efforts**





# **Fond du Lac Band of Lake Superior Chippewa: A review of public health in the community**

- **Research the history of Public Health on the Fond du Lac reservation**
- **Evaluate the current Public Health programs**
- **Highlight Best Practices**



# **BMCC Public Health Research Cohort: Youth, Nutrition, and Recreational Activities**

- **Identify the status of 12-19 year old youth in relation to risk factors that impact health.**
- **Identify strategies that would be effective towards balancing the wellness of our youth.**



## Student Comments

- “The institute greatly expanded my knowledge of public health. It really helped me learn how to apply public health principles to real life situations.” (Student, 2008)
- “The institute has opened up a whole new world to me in regards to theories, organizations, and networks that are available to assist community efforts in preventing and creating a healthy community.” (Student, 2008)



# Mentor Comments

- All the students are more methodical in following their curiosity regarding public health issues, They are now more likely to purposely seek/articulate a question that will focus a scientific inquiry. They will now consult .....consider their assumption, try to explore implications, and arrive at a measurable conclusion. ( Mentor, 2008)
- They are looking at research with greater interest than they did prior to the UNLV institute. (Mentor, 2008)

# Evaluation Considerations

- ***Feasibility*** – Culturally responsive
  - Diverse cultures – parallel world view
- ***Accuracy*** – Good science
  - Western and Native science
- ***Propriety*** – Contextually appropriate
  - Schools and Communities
- ***Utility*** – Short and long term outcomes
  - Enhance local efforts
  - Build skills for the long term



# A Shared Vision of Hope

- Education as a communal process not an individual endeavor.

"Indigenous peoples have philosophies which connect humans to the environment and to each other and which generate principles for living a life which is sustainable, respectful and possible" (Smith, 2002).



# Waewaenon