

Details

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Local and Traditional Knowledge & Risk

Introduction

This activity is 4 of 4 in a series that exposes students to the concepts of and work done by the HERMYs Project (Historical Ecology and Risk Management: Youth Sustainability):

1. A Narrative Pantomime
2. Environmental Risk Assessment
3. Risk Hazard Identification
4. Local and Traditional Knowledge & Risk

“Historical accounts of remote Alaska can only offer documentation of events that have taken place in the last 150 years or so. Ancient cultures, on the other hand, have documented thousands of years through oral history and storytelling. Although there is some added fiction to make the stories more fun, this local and traditional knowledge (LTK) allows us to examine REAL events from the perspective of ancient cultures.” – Hollis Yenna

Objective

Students will understand the role that oral history plays in understanding historical ecology and ancient cultures.

Procedure

1. Read the 3 short stories about Local and Traditional Knowledge (LTK) and answer the questions regarding each story.
2. After the stories are finished, explain to the students that traditional stories were, for many years, the only means for recording history – many cultures had no written language. As a result, many stories were passed on by word of mouth and, as a result, many traditional stories have a lot of truth to them. For this

Materials

- Blank sheets of paper
- Pencils
- Pictures of the following Eskimo Terms:
 - Umiak
 - Seals
 - Caribou
- An imagination
- Emergency Management Table
- LTK Stories
- LTK Writing Assignment

reason, LTK can actually be used to explain the historical past of many cultures.

3. Provide resources about Teen CERT and review phases of disasters, that is, preparedness, mitigation, response and recovery. Show several videos about Teen CERT. See <http://www.fema.gov/community-emergency-response-teams/teen-community-emergency-response-team>

Which phase is continued prior to, during, and after a disaster? (Mitigation)

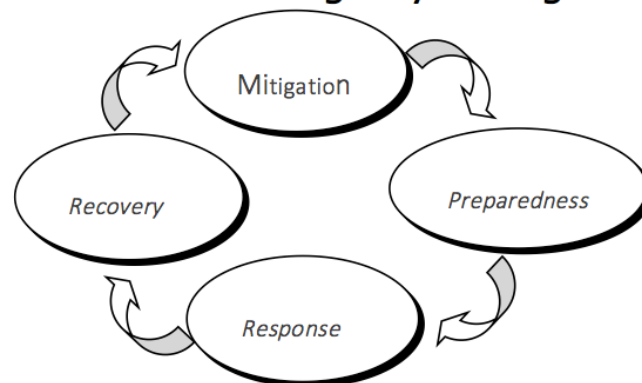
For Risk and Disaster Research and Emergency Management, LTK is very useful and is applied to Mitigation Strategies, Decisions, and Options.

The Phases of Disasters are for Animals too!

See Disaster Phases Diagram from Animals in Disasters Training Module.

http://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.training.fema.gov%2FEMIWeb%2Fdownloads%2Fis10_unit3.doc

The Four Phases of Emergency Management



Extension

Not applicable

Assessment

Not applicable

Author / Credits

This lesson was developed by PolarTREC teacher Hollis Yenna <yennahjh@gmail.com>.

Standards

None, not applicable



References

Mitigation of Natural Hazards and Disasters: International Perspectives
2005, pp 209-239

Climate Change and Natural Hazards in Northern Canada: Integrating Indigenous Perspectives with Government Policy

John Newton, C.D. James Paci, Aynslye Ogden

http://link.springer.com/chapter/10.1007%2F1-4020-4514-X_11

Local and Traditional Knowledge in Understanding Arctic Change

ARCUS State of the Arctic Abstract

Mark A. Parsons, Shari Gearherad, Chris McNeave, Henry Huntington

Local and traditional knowledge (LTK) provides rich information about the Arctic environment at spatial and temporal scales that scientific knowledge often does not have access to (e.g. localized observations of fine-scale ecological change potentially from many different communities, or local sea ice and conditions prior to 1950s ice charts and 1970s satellite records). Community-based observations and monitoring are an opportunity for Arctic residents to provide 'frontline' observations and measurements that are an early warning system for Arctic change. The Exchange for Local Observations and Knowledge of the Arctic (ELOKA) was established in response to the growing number of community-based and community-oriented research and observation projects in the Arctic. ELOKA provides data management and user support to facilitate the collection, preservation, exchange, and use of local observations and knowledge.

Managing these data presents unique ethical challenges in terms of appropriate use of rare human knowledge and ensuring that knowledge is not lost from the local communities and not exploited in ways antithetical to community culture and desires. Local Arctic residents must be engaged as true collaborative partners while respecting their perspectives, which may vary substantially from a western science perspective. At the same time, we seek to derive scientific meaning from the local knowledge that can be used in conjunction with quantitative science data. This creates new challenges in terms of data presentation, knowledge representations, and basic data description. This paper reviews these challenges, some initial approaches to addressing them, and overall lessons learned and future directions.

<http://soa.arcus.org/abstracts/local-and-traditional-knowledge-understanding-arctic-change>

North by 2020

Perspectives on Alaska's Changing Social-Ecological Systems

Edited by Amy Lauren Lovcraft and Hajo Eicken

Distributed for University of Alaska Press © 2011

Originating from a series of workshops held at the Alaska Forum of the Fourth International



Polar Year, this interdisciplinary volume addresses a host of current concerns regarding the ecology and rapid transformation of the arctic. Concentrating on the most important linked social-ecological systems, including fresh water, marine resources, and oil and gas development, this volume explores opportunities for sustainable development from a variety of perspectives, among them social sciences, natural and applied sciences, and the arts. Individual chapters highlight expressions of climate change in dance, music, and film, as well as from an indigenous knowledge-based perspective.

<http://www.press.uchicago.edu/ucp/books/book/distributed/N/bo12373683.html>

Iñupiaq Ethnohistory

Selected Essay by Ernest S. Burch, Jr.

Edited by Erica Hill

Distributed for University of Alaska Press © 2013

It took more than a century for colonialism to reach Alaska after the first Europeans set foot in what would become the continental United States. The complex society of the Iñupiaq, settled at the very top of the world, remained unknown and undisturbed longer than many other Native tribes in America. Ernest S. Burch Jr. dedicated most of his life and career to understanding this precolonial period and the lives of Northwest Alaska Natives. Iñupiaq Ethnohistory finally collects in one place Burch's critical research in this area, bringing to light work that had once been buried in scholarly books or scattered across journals. It is a fascinating and accessible window into a now-vanished world.

<http://www.press.uchicago.edu/ucp/books/book/distributed/I/bo16802609.html>

Arctic Climate Impact Assessment

Local and Traditional Knowledge in the Context of Alaska and Arctic Climate Change

The Arctic Climate Impact Assessment (ACIA) published by the International Arctic Science Committee (IASC) in 2005 provides a comprehensive review of the perspectives of Native peoples in the Arctic on climate change. Chapter 3 of this report described the development and nature of what was termed "indigenous knowledge" and its use and application, provided observations of climate change, and presented nine case studies, including ones for the Kotzebue area and Aleutians/Pribilof Islands region of Alaska. The summary below is taken from that chapter. The full report is available in pdf form at <http://www.acia.uaf.edu>. The references to studies that support the excerpted statements below are included in the report.

<http://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.coseealaska.net%2Ffiles%2Falaska%2FLTK1.doc>

Local and Traditional Knowledge Stewardship: Managing Data and Information from the Arctic

ELOKA, an NSF Arctic Observing Network (AON) project, is a data management research support service that specializes in working with arctic communities and researchers in the collection, preservation, and use of local and traditional knowledge (LTK) and community-based monitoring (CBM) data and information.



<http://www.arcus.org/witness-the-arctic/2013/2/article/19956>

Exchange for Local Observations and Knowledge of the Arctic (ELOKA).

<http://eloka-arctic.org/about/manual/index.html>