Five Themes of Geography

Derek H. Alderman
East Carolina University
Department of Geography

Today’s Talk

• What is the state of geography education?
• What is geography?
• What are the five themes?
• What are the bigger questions and issues underlying the five themes?

Geography Education in Crisis

National Geographic - Roper
Global Geographic Literacy Survey

Conducted by RoperASW for the National Geographic Education Foundation
Methodology

- Survey of 18- to 24-year-olds in nine countries: Canada, France, Germany, Great Britain, Italy, Japan, Mexico, Sweden and the U.S.

Overall Results

Average # of correct answers out of a possible 56 correct

- Sweden: 40
- Germany: 38
- Italy: 38
- France: 34
- Japan: 31
- Great Britain: 28
- Canada: 27
- U.S.: 23
- Mexico: 21

Sample: 18-to-24-year-olds

World Hotspots

Percentage of young adults naming Afghanistan as the base of the Taliban/al Qaeda

- Sweden: 84%
- Great Britain: 84%
- Italy: 82%
- Germany: 79%
- Canada: 75%
- Japan: 71%
- France: 70%
- U.S.: 63%
- Mexico: 58%

Sample: 18-to-24-year-olds
World Hotspots
Percentage of young U.S. adults correctly identifying Afghanistan on a world map

Sample: U.S. 18- to 24-year-olds

Pop Culture
Percentage of young U.S. adults correctly identifying Afghanistan on a world map vs. knowing where the last season of “Survivor” was filmed

Sample: U.S. 18- to 24-year-olds

Country Location Skills
Percentage of young Americans who simply said “I don’t know,” when asked to find ___ on a world map

Sample: U.S. 18- to 24-year-olds
**State Location Skills**

Percentage of young Americans correctly identifying ___ on a map of the United States

![Bar chart showing state location skills](chart)

**U.S. Population**

Percentage of young adults correctly identifying...

![Bar chart showing U.S. population](chart)

**U.S. Population**

Percentage of young Americans believing the U.S. population falls within the following ranges

![Bar chart showing U.S. population](chart)
Media is not always a good teacher

Sometimes textbooks aren’t helpful either…

Geography: A Primer

• What is geography?
  – Poorly understood discipline
  – Popular View: A body of information and facts
  – In Reality: A perspective of the world and how it works

• What is a geographic perspective?
  – More than simply memorizing the names of capitals and rivers
Five Themes of Geography

1. Location
2. Place
3. Movement
4. Human-Environment Interaction
5. Regions

Theme of Location

- Why does location matter?
  - Part of one’s identity and frame of reference
    - Territoriality
  - Basis of our communities
    - Vote by district and state—Why?
  - Source of opportunities and constraints in people’s daily lives
    - Spatial mismatch of where you live and where you work
  - Shapes interactions and connections between places
    - Neighborhood effect

Rejoin Pangaea (super-continent)
2 traditional expressions of location

- Absolute Location
- Relative Location—Situation

Absolute Location

- Absolute Location
  - Position or site in terms of geographic coordinate system
  - Often Mathematical
  - Most common: Latitude & Longitude
  - Another form: Street address
  - Unique identification in space
Imp. Facts about Lat. And Long.

<table>
<thead>
<tr>
<th></th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min-max values</td>
<td>0-90 deg.</td>
<td>0-180 deg.</td>
</tr>
<tr>
<td>Major lines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equator (0)</td>
<td></td>
<td>Prime Meridian (0)</td>
</tr>
<tr>
<td>Poles (90)</td>
<td></td>
<td>Intl. Date Line (180)</td>
</tr>
<tr>
<td>Lines</td>
<td>Parallel</td>
<td>Converge at poles</td>
</tr>
<tr>
<td>Measures</td>
<td>N-S of Equator</td>
<td>E-W of Prime Meridian</td>
</tr>
</tbody>
</table>

Relative Location

- Relative Location
  - Position in relation to other places
  - How a place interacts or connects with rest of world (its situation)
  - Related to accessibility—ease with which to reach
  - Location in relation to transportation, communication, external connections

Panama

- Absolute Location: 8° 58′ N    79° 33′ W
- Relative Location: Middle America, borders and connects (with canal) Caribbean Sea and the North Pacific Ocean, bridge between Colombia and Costa Rica
Bigger questions related to location

1. Don’t stop at: Where are things located?
2. Why are things located where they are?
3. How are things in one location related to things in another location? (spatial patterns)
   - Maps important for studying patterns

Epicenters of Earthquakes

GIS
Analyzes Earth as Layers of Information
Global Positioning System
Initially developed by military
Now widespread

Brazilian Rainforest Deforestation
False color infrared

Shrinking Aral Sea
Maps are powerful tools

If a picture is worth a thousand words, then a map is worth ten thousand words.
Maps can be fun: Cartogram

worldmapper.org

Population
Toponyms

• Another expression of location to be explored in the classroom
• Also known as place-names
• Names also provide clues to culture

Place names

• Ethnic origins
  – French and Spanish names in Louisiana
  – Dutch names in South Africa
• Political Change
  – Russia: St. Petersburg to Leningrad to St. Petersburg
  – US: German-based names changed in WW I
• Commemorate National Leaders
  – Washington
    • Name of state, national capital, 31 counties
  – M.L.K
    • Over 890 cities have streets named for King; Over 110 public schools
Location/Place Name Exercise

• Turn students into map-makers—best way to learn locations
• How many cities named Greenville in US?
  – Twenty
  – Compare climate, population, and economics in one Greenville versus another
  – Leads to discussion of how location affects way of life and how people live

Theme of Place

• Traditionally studied as collection of cultural and physical characteristics

• Physical characteristics
  – Climate, soil, water, wildlife, etc.

• Cultural characteristics
  – Human imprint or impact on a place
  – Built environment—buildings, roads, etc.

Bigger questions related to place

1. How are places different from each other?
2. How are places similar to each other?
3. What factors explain these similarities and differences? (processes)
   – Photographs helpful in exploring places in classroom
Farming in Zimbabwe vs. Canada

19th Century Paris

Sense of Place and Mental Maps

- Place is not just set of objective facts
- Sense of Place
  - The subjective, psychological attachment to place
- Mental maps
  - How we perceive the physical arrangement of places
  - How we feel about or value places
Mental maps of children aged 6, 10, and 13.

**Mental Map Exercise**

- Ask students to draw maps of places (school, neighborhood, state, country, etc.)
  - Assess their voids in geographic knowledge
  - How do these maps vary by student and why?

- Ask students to tell you what places they love or fear and why
  - Topophobia
  - Topophilia
  - People’s descriptions of a place reveal their values, attitudes, and perceptions
What shapes our mental maps?

• Education
• Mass Media (from news to movies)
• Income/Social Class
• Personal Prejudice/Social Experience
• Travel/tourism

Theme of Movement

Geographers study movement of:
– Goods (exports/imports, trade)
– Ideas (fads, fashion, information, media)
– People (tourism, migration, commuting)

Watching solar powered TV in Niger

Bigger Questions Related to Movement

– How does the movement of people and things alter places and change lives?
– What factors shape patterns of movement?
– How is the movement of people and things open to debate?
Why Do People Migrate?

• Result of push and pull factors
• Push factors: conditions or perceptions that induce people to move away from their home or origin (usually negative)
• Pull factors: conditions or perceptions that tend to attract people to a destination (usually positive)

Cultural Diffusion

• Cultural ideas spread from an origin
  – Chinese fortune cookie is actually Japanese
  – Chewing gum originates with Native Americans
• Cultural ideas spread in distinctive patterns
  – Contagious (Rumor or Fad)
  – Hierarchical (Fashion & Technology)
  – Reverse-hierarchical (Wal-Mart)

Store Wars---Ashland, VA
Cultural Globalization

Imported Global Culture  Local Culture  Hybrid Glocal Culture

Glocalization – adapting global imported culture to local cultures – a hybrid mixture of global and local

<table>
<thead>
<tr>
<th>Spider-Man gets glocalised (or “transcreated”)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spider-Man USA</strong></td>
</tr>
<tr>
<td>Secret identity</td>
</tr>
<tr>
<td>Girlfriend</td>
</tr>
<tr>
<td>Family members</td>
</tr>
<tr>
<td>Backdrop</td>
</tr>
<tr>
<td>Origins of powers</td>
</tr>
<tr>
<td>Arch enemy</td>
</tr>
</tbody>
</table>

Global spread of culture can be controversial
Movement Exercise

- Students interview different relatives about their migration histories (where they moved to and from and why)
- Students record and map origin of products found at home (food, clothing)
- Students write letter to a friend describing their hometown as if the automobile had never been invented

Theme of Human-Environment Interaction

- How the environment influences human activities
- How humans depend on the environment
- How humans modify the environment
- How humans adapt to the environment

Bigger Questions Related to Human-Environment Interaction

- How is human-environmental interaction a complex cycle rather than one way relationship?
- How does the human-environmental interaction have intended and unintended consequences?
- How can we make the human-environmental interaction sustainable?
Fig. 1.2 Ski Resort in Whistler Mountain, BC, Canada

Fig. 1.1b Flooding in Indonesia
Coastal Overdevelopment:

Sea Level Rise
Coastal Erosion

Petrochemical Pollution in Texas City, TX

Tires and Mosquitoes
**Human-Environment Exercise**

- Streets Education  
  (www.streetseducation.org)
- Students participate in activities to improve livability of streets
- Livability includes environmental impacts, alternative transportation, safety, etc.
- Student calculate AVO (Average Vehicle Occupancy) of street near school or home
Regions

- Basic building blocks in geography
- Regions do not occur naturally but created by humans—sometimes arbitrary creations
- Types of regions:
  - Formal
  - Functional
  - Fiat
  - Perceptual

Formal Regions

- Defined by homogeneity or sameness of a characteristic
- Based on similar human or physical characteristic
- Ex: Region of French Speakers

Formal Region: Appalachia
What do you call a generic soft drink?

- Coke
- Soda
- Pop
- Other

http://popvssoda.com:2998/
Functional Region

- Defined by interactions or connections with other places
- Things usually flow into or out of a central node
- Node can be bank, grocery store, smokestack

Functional Region: Commuting Fields

- Region defined by political decision or process
- Boundaries equal to political boundaries
- Varies
  - USA
  - State of NC
  - Pitt County
  - 3rd voting District
Perceptual Region

- Regions as they exist in our heads
- How we identify ourselves regionally through our activities
- Also how we classify or group others (stereotype)
  - Third World
  - Developing World
  - Muslim World

Percent of GEOG 1000 students identifying state as "southern".
Bigger questions related to regions

- What role does scale play in people’s lives?
- How are we part of different geographic levels of activities?
- How do our lives operate simultaneously at different scales—local, national, and global?
- How are we part of a world in which regional boundaries are constantly changing?

Region Exercise

- Sports geography
- Study of the origin and distribution of players on sports teams as way of measuring shifting scale of human activities and culture
- Record, tabulate, and map geographic origin of:
  - NASCAR drivers (How has a southern sport become more national?)
  - NHL Hockey (How has a Canadian sport become more global?)
  - Examine team rosters for different time periods to measure regional change over time
Thank You