Please Welcome

Dr. Brian Cooper

Department of Geography

Dr. Cooper is a faculty member specializing in Sub-Saharan Africa and World Regional Geography.
Absolute Distance vs. Relative Distance

• **Absolute Distance:** the actual physical distance in measurable units (usually miles or kilometers) between places.

• **Absolute distance** DOES NOT CHANGE.

• **Relative Distance:** the time it takes to get from one place to another.

• **Relative distance** is highly dynamic as a result of changes in transportation technology and transportation improvements.
Distance Decay

- **Distance decay**: the reduction in flow or movement among places with increasing distance between them.

- The underlying concept is **the friction of distance** or costs of overcoming space.
Time-Space Convergence and Cost-Space Convergence

- Transportation improvements have resulted in **time-space convergence (compression)**: the progressive reduction in the travel time among places.

- Ever-cheaper movement of people and goods leads to **cost-space convergence (compression)**.

- Changes in transportation technology AND/OR improvements in a particular mode of transportation can accomplish these.
Are you ready for the exam?
Which of the following statements is NOT true in regard to the concept of relative distance?

• A. Relative distance is often measured in miles or kilometers
• B. Relative distance is a highly dynamic concept that changes over time
• C. Relative distance includes such subjective measurements such as “near” or “far”
• D. Changes in relative distance can be achieved through improvements in transportation technology
The friction of distance is the underlying concept for distance decay. What does the friction of distance refer to when discussing the impact of distance decay?

- A. The ruggedness of terrain
- B. The amount of electricity it takes to power a mode of transportation per mile
- C. The costs of overcoming space
- D. The additional speed we gain as we travel over longer distances
Cost-space convergence or compression refers to what phenomenon associated with transportation improvements?

A. The ever-quicker movement of people and goods across space
B. The ever-cheaper movement of people and goods across space
C. The fact that we’ve become more dependent on physical dimensions than social relations in terms of spatial interaction
D. As we build more connections, we always make more money
Please Welcome

Dr. Dwight D. Watson

Department of History

Dr. Watson is an Associate Professor whose specializations include African American History and the Civil Rights Movement.
The Struggle for Equality

Civil Rights in the 50’s and 60’s
What was life like before the Civil Rights movement?

• Use the pictures in the following slides to make some statements describing life in the U.S. before the Civil Rights movement.
WE SERVE WHITE'S only
NO SPANISH OR MEXICANS
Are you ready for the exam?
Test Question 1

• Discuss the rise of Jim Crow.
Test Question 2

- When did the modern Civil Rights Movement begin?
Please Welcome

Dr. Brittany Vinciguerra

Department of Chemistry & Biochemistry

Dr. Vinciguerra is a faculty member whose field of study is supramolecular and synthetic organic chemistry.
To convert between units, you need the conversion factor.

- The relationship between the units.
- Examples:
  - 12 inches = 1 foot
  - 2.54 cm = 1 inch

Metric System units are all related by factors of 10:

<table>
<thead>
<tr>
<th>Unit Prefix</th>
<th>Kilo</th>
<th>Hecto</th>
<th>Deca</th>
<th>(Base)</th>
<th>deci</th>
<th>centi</th>
<th>milli</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplier</td>
<td>1000</td>
<td>100</td>
<td>10</td>
<td>1</td>
<td>0.1</td>
<td>0.01</td>
<td>0.001</td>
</tr>
<tr>
<td>How many in a base unit?</td>
<td>0.001</td>
<td>0.01</td>
<td>0.1</td>
<td>1</td>
<td>10</td>
<td>100</td>
<td>1000</td>
</tr>
</tbody>
</table>
Practice

• How many centimeters (cm) are in 23 Decameters (Dam)?
  • Before calculations, decide if we are looking for a BIG number or a small number.
  • Centimeters are much smaller than a decameter. There are MANY cm in a Dam, so our answer should be bigger than 23.
  • Easiest: do it in two steps
    • Decameters → meters (10 m in a Dam)
    • Meters → centimeters (100 cm in a m)

23 Dam x 10 x 100 = 23,000 cm
Dimensional Analysis

Dimensional Analysis is used to organize conversion factors and track units for a more complex conversion.

For example:

How many millimeters (mm) are in 1 mile?

- We need several conversion factors for this calculation:
  - 1 mile = 5280 feet
  - 1 foot = 12 inches
  - 1 inch = 2.54 cm
  - 1 cm = 10 mm
# Dimensional Analysis

<table>
<thead>
<tr>
<th>1 mile</th>
<th>5280 ft</th>
<th>12 in</th>
<th>2.54 cm</th>
<th>10 mm</th>
<th>? mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mile</td>
<td>1 ft</td>
<td>1 in</td>
<td>1 cm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Check your units
2. Multiply the top line  
   \[1 \times 5280 \times 12 \times 2.54 \times 10 = 1609344\]
3. Multiply the bottom line  
   \[1 \times 1 \times 1 \times 1 = 1\]
4. Divide  
   \[= 1609344 \text{ mm}\]
How many of me will go around the Earth?

- Let’s say I want to know how many of me it would take, lying head-to-head, to go around the circumference of the Earth.
  - Our answer is unitless, but this is still just a conversion.
  - The circumference of the earth is 24,901 miles.
  - I am 5’1” → 61 inches

<table>
<thead>
<tr>
<th>24,901 miles</th>
<th>5280 ft</th>
<th>12 in</th>
<th>1 “me”</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mile</td>
<td>1 ft</td>
<td>61 in</td>
<td></td>
</tr>
</tbody>
</table>

25,864,383 “me”s
You walk into Quality Quidditch Supplies willing to spend up to $1000 on a new broomstick. However, the prices are all in galleons! The Firebolt X is 250 galleons, the Shooting Star vintage model is 200 galleons, the **Nimbus 5000** is 150 galleons, and the Cleansweep 13 is 125 galleons. Assuming there is no sales tax in the Wizarding World, what is the best broom you can buy?

- 1 galleon = 17 sickles
- 1 sickle = 29 knuts
- 1 knut = $1.34

<table>
<thead>
<tr>
<th>$1000</th>
<th>€100</th>
<th>1 knut</th>
<th>1 sickle</th>
<th>1 gallon</th>
<th>151.37 Galleons</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1</td>
<td>€1.34</td>
<td>29 knuts</td>
<td>17 sickles</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Are you ready for the exam?
You just learned that you should be drinking roughly 3 liters of water a day. BUT you only have a souvenir shot glass from your mom’s trip to Hawaii (thanks, mom!) to drink from. How many shots of water should you drink each day?
Bob Cat needs to fill up his pool for the summer. He decides to use a tablespoon to carry water back and forth from his kitchen sink to get in some aerobic exercise. His pool holds 50 gallons. After 1000 trips, what percentage of the pool is filled?

How many trips will it take to fill the pool?

- 1 fluid ounce = 2 tbsp
- 8 fluid ounces = 1 cup
- 1 pint = 2 cups
- 1 quart = 2 pints
- 1 gallon = 4 quarts

Test Question 2
Let’s Reflect

1. Was your approach to note-taking identical for all three lectures?

2. If you changed your approach in any way, why? What does that mean?

3. Are you confident in your retention of the material you were just presented with?
What Type of Note-taker Are You?

The Distracted/Artistic Note-taker

- Ancient Civilization
- Maya
- Mexico???
- Tenochtitlan

The Detailed Note-taker

- The Maya were the only ancient civilization to arise in the lowland tropics.
- The Aztec search for a capital and the legend of the location serves...
- Mexico City is the Primatc city of Mexico, meaning...

The Outliner Master

- Human Geography of Mexico:
  1. The Maya
     a. only major ancient civilization to arise in the lowland tropics
     b. experts in math (concept of zero) and astronomy (calendar, alignment of buildings, etc.)
  2. The Aztec
     a. search for a capital (legend of location = national symbol of Mexico today)
     b. Lake Texaco and the city of Tenochtitlan; conquest by Spanish and construction of Mexico City on the ruins of Tenoch.
What Type of Note-taker Are You?

The Distracted/Artistic Note-taker

Pros:
• Satisfy your creative energy.
• My help you stay focused in class.

Cons:
• Lack of organization.
• Does not show relationships.
• May distract you from lecture itself.

I’m a doodler. What do I do?
Try to incorporate concept maps, graphs, charts, relevant pictures while still providing details in your notes.
What Type of Note-taker Are You?

Pros:
• Sense that you are getting the most from lecture.

Cons:
• Unrealistic.
• Unfinished sentences.
• Takes your focus away from what professors are saying.

How do I make this work for me?
Write down the most relevant information and note the slide number/page in the text/timestamp/etc. and add details in your study time.
What Type of Note-taker Are You?

Pros:
• Keeps information organized.
• Creates a structure for when you review your notes.

Cons:
• You must select what information to include and organize it as you are presented with it
• Lacks visuals.

How do I make this work for me?
Review the material prior to lecture. This will help you understand the outline of the lecture/chapter/etc.
Cornell Notes

The right side of the page is used for taking notes in class.

The recall column is used for key points, definitions, summaries, and questions. This is helpful while studying because it only provides the most test worthy information.
Discussion Notes

Summary of the main point of the class discussion.

Tend to be shorter and usually do not follow any particular structure.

Focus on main ideas rather than details.

Includes a reflection/summary at the end.
T-Notes

• Similar to Cornell in style. Used to record, revise, and review notes

• Useful for learning procedures such as mathematics and statistics
Get Organized

- Attend ALL lectures
- Sit near the front of the classroom
- Use a separate notebook or binder for each course
- Date your notes
  - (This matters around test time!)
- Write on one side of the page
- Have pens and pencils ready
- If text is referenced, have it open and ready
A Good Listener is Hard to Find

- Don’t fake listening, tune in!
- Stay engaged by being prepared.
- Focus on what’s new to you in the lecture.
- Paraphrase
- Stay active in your listening.
- Train your brain.

To truly listen, you must be attentive!

Hearing is a physical act that does not necessarily involve thought.
Tips for Note Taking

- Develop your own style and system of symbols and abbreviations
- Use fragments – You only need the most important information
- Use the language of the discipline
- If a word or concept is used that you don’t understand, circle it to look back on later
- If your handwriting is messy, copy type up your notes neatly while the information is still fresh
- Pay attention to your professor’s level of interest to the material - It’s usually a tell
- Copy down lists, diagrams, and examples
Note-Taking Hazards

You should not:

• Consider an example too obvious
• Use roman numerals
• Overload yourself with abbreviations
• Give up if the lecture is too fast or slow
• Waste space
• Wait for “the important information”
• Look only for concrete facts
• Doodle
• Text or play on your phone or laptop
Having a Hard Time Keeping Up?

- Prepare before class
- Trace copies of notes with your peers
- Attend S.I or other tutoring services
- Attend office hours or talk to your professor after class
- Ask questions
- Record lectures
- Leave space in your notes so you can clarify information later
What to do during your least favorite class

• Get sleep before class (not in it)
• Take snacks and caffeine for energy
• Sit in the front of the class and stay engaged
• Chew gum or eat candy quietly
• Review your notes and textbook before the class begins
• Keep a stress ball or small toy in your bag to stimulate circulation of arms and hands
• Avoid scheduling classes when you know you will be sleepy
• Give yourself grace
# Recording Lecture vs Typing Notes

## The Tape Recorder:

**PROS:**
- “Rewind your professor”
- Fill in gaps in notes
- Listen at your leisure

**CONS:**
- Leads to daydreaming in class
- Time consuming
- Batteries can/will fail

## The Laptop

**PROS:**
- Types faster than you write
- Always legible
- You can still abbreviate

**CONS:**
- Bulky
- Commonly stolen or lost
- Needs an outlet or battery source
For More Note-Taking Tips and Academic Help Visit us at SLAC

Contact Us:
Website: txstate.edu/slac
Phone: 512-245-2515
Office: 4th floor, Alkek Library (Suite 411)

Follow Us:
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@txstslac
Student Learning Assistance Center (SLAC)