Note Taking

Why Take Notes???

7x more likely

to remember facts 1 week after taking the notes!!!

Handwritten vs. Computer Notes

- Professor dependent
- If nothing prevents you from taking handwritten notes, this is the more effective way to take notes
  - "more effective" in that you will remember more and learn more by taking notes this way
  - With a computer the temptation is to type every word – this bypasses a critical way we learn – listening to information, processing it, "talking" in our own heads so that we understand it, and then writing that version down.

5 systems of notetaking

- Outline Method
- Flow Method
- Cornell Method
- Slide show notes
- Mind Map Method

Outline Method

Outline Method

- How to do Outline Method
  - Bullet points of main ideas of lecture
  - Sub-bullet points for details

- Tips:
  - If on paper either leave space between main idea bullet points or write main ideas at top of paper so that you can add them as you go so you don't run out of space for sub-bullet points
  - Computer may make this method easier

Outline Method/Traditional Method

I. How to Build a Tree House (Main Topic or Idea)

A. Supplies (Subtopic)

1. Lumber (Support)

a) 10-2x4 (Clarification or list)

b) 6-2x8 (Clarification or list)

2. Nails (Support)

B. Plans (Subtopic)

II. Fundraising (Main Topic or Idea)

Keep it brief and to the point.

Why Use the Outline Method?

- Organized
- Based on hierarchy
- Compartmentalized
- Has strong visual component
- Fast and efficient

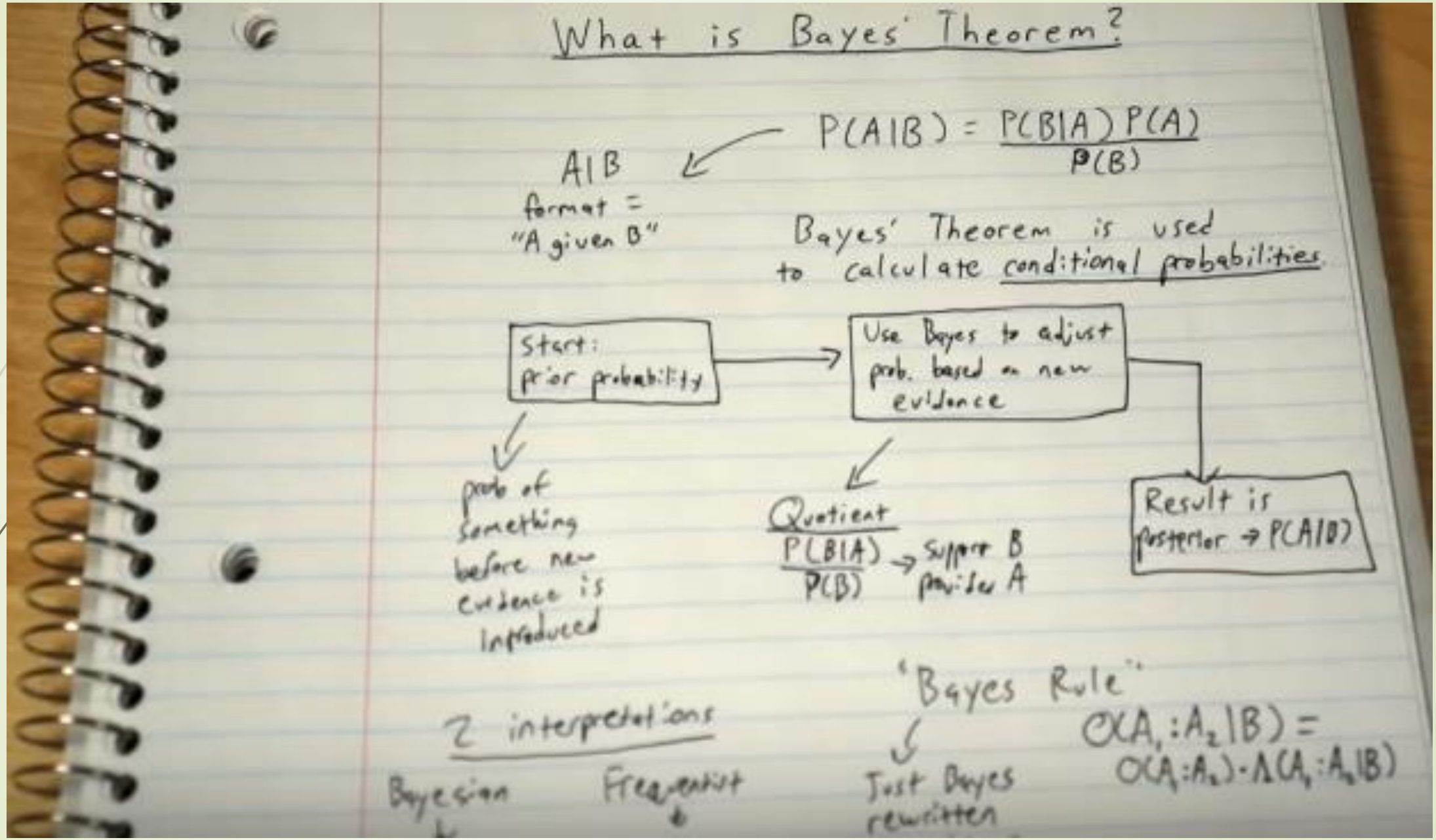
Flow Method

How to Use the Flow Method

- Put your mental image of the lecture on paper
- Emphasize important details
- Write the lecture in your own words

- Use visual aids
  - Arrows, Boxes, Circles

- Use Questions and Answers
  - Write questions out of what the professor says and then write the answer


What is Bayes' Theorem?
$P(A|B) = \frac{P(B|A)\,P(A)}{P(B)}$
A|B
format = "A given B"
Bayes' Theorem is used to calculate conditional probabilities.
Start: prior probability
Use Bayes to adjust prob. based on new evidence
Result is posterior → P(A|B)
prob of something before new evidence is introduced
Quotient
$\frac{P(B|A)}{P(B)}$ → support B provide A
2 interpretations
Bayesian
Frequentist
"Bayes Rule"
Just Bayes rewritten
$O(A_1:A_2|B) = O(A_1:A_2)\cdot\Lambda(A_1:A_2|B)$

Why Use the Flow Method?

- Less rigid
- Not writing every word that is said in lecture
- Learning while writing

Cornell Method

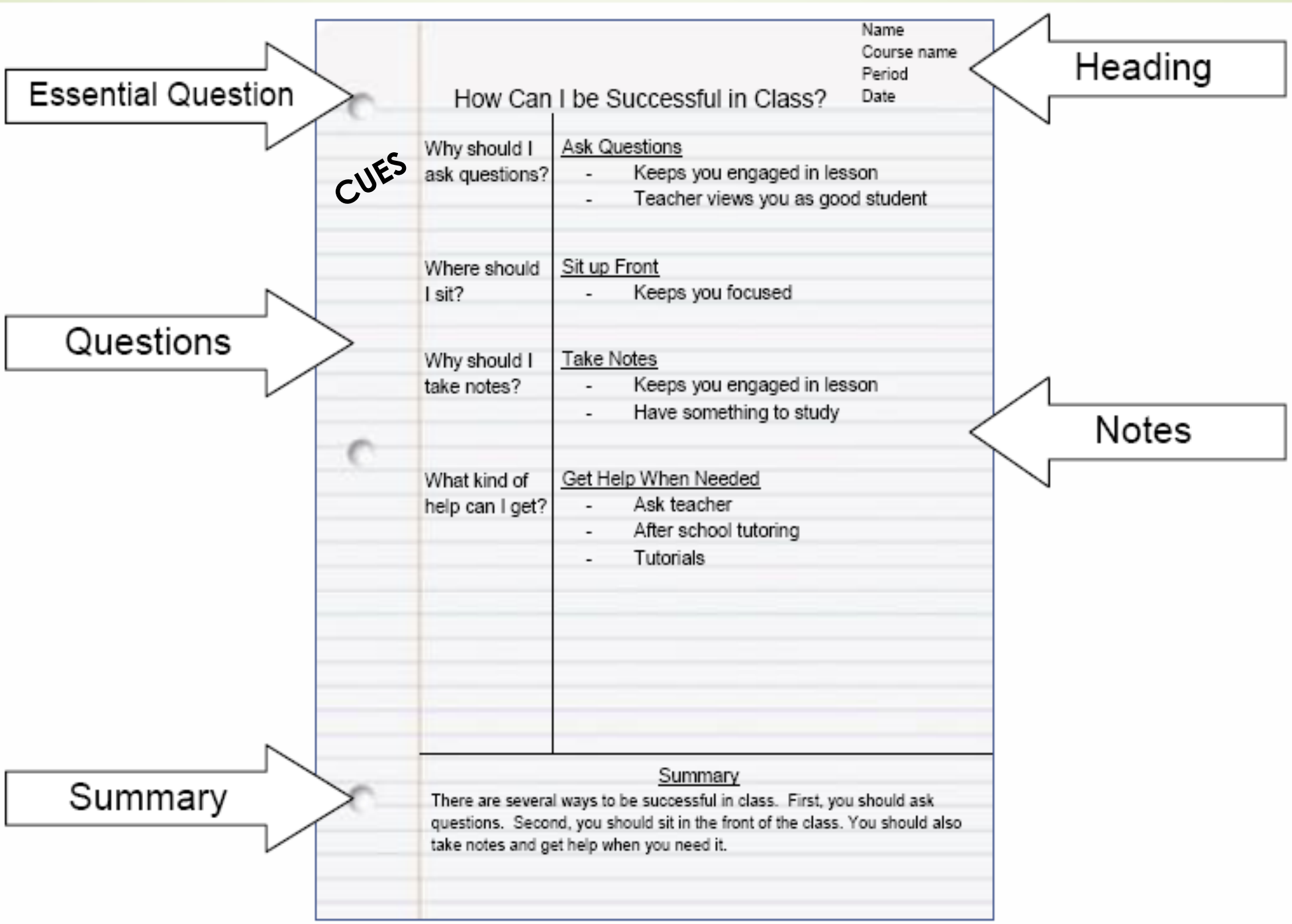
Cornell Method

- How to set up Cornell Method
  - Divide paper into 3 sections
  - Top of paper has 2 columns
    - Cue column
    - Note taking column
  - Bottom of paper has summary section

How to Use the Cornell Method

- During class write in the **Note** taking section
  - Can use outline or flow method
- After lecture write down questions or thoughts in the **Cue** column
- Write down overall summary in the **Summary** column

- Use the **Cue** and **Summary** column to review notes and help you study


Essential Question
How Can I be Successful in Class?
Name
Course name
Period
Date
Heading
CUES
Why should I ask questions?
Ask Questions
- Keeps you engaged in lesson
- Teacher views you as good student
Where should I sit?
Sit up Front
- Keeps you focused
Questions
Why should I take notes?
Take Notes
- Keeps you engaged in lesson
- Have something to study
Notes
What kind of help can I get?
Get Help When Needed
- Ask teacher
- After school tutoring
- Tutorials
Summary
Summary
There are several ways to be successful in class. First, you should ask questions. Second, you should sit in the front of the class. You should also take notes and get help when you need it.

Why Use the Cornell Method?

- Very Systematic
- Encourages reflection and clarification
- Great way to know if you understand the material
- Helps organize what to study

Slide Show Notes

Slide Show Notes

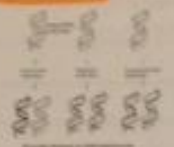
- How to use Slide Show Notes
  - Write what the professor is saying next to each slide
    - Use outline or flow method next to the slide
  - Make notes of points that are emphasized
  - Write questions on the slides

Chap 11

9/21/2015

DNA replication and recombination

Watson and Crick suggested in their publication describing the structure of DNA that DNA could be replicated semiconservatively



Grew E. coli in media w/ N^{15} all DNA is labeled w/ N^{15}

Switched to new media w/ N^{14}

Harvest after 20 min and 40 min

1 generation = 20 min (1 round of DNA replication)

Used DNA with different DNA gradient

Separate DNA based on density

If DNA is semiconservative expect result of 1 ~~and~~ or 2 bands

~~If DNA is conservative expect result of 2 bands~~ ~~1 band, 1 band~~

Meselson-Stahl experiment

Dispersive should have been in between N^{14} and N^{15}

Semi conservative in between 1 band

Taylor, Woods and Hughes confirm semiconservative replication in eukaryotes

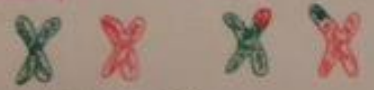
Plant cell cells in radioactive media

2 rounds replication

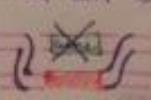
Semi conservative 1 sister chromatid radioactive

1 sister chromatid not radioactive

Homologous recombination crossing over in meiosis



When you have 2 DNA molecules they can break and rejoin



Chap 12 Chap 2 Chap 3 Chap 13 Chap 14 Chap 15 Chap 16 Chap 17

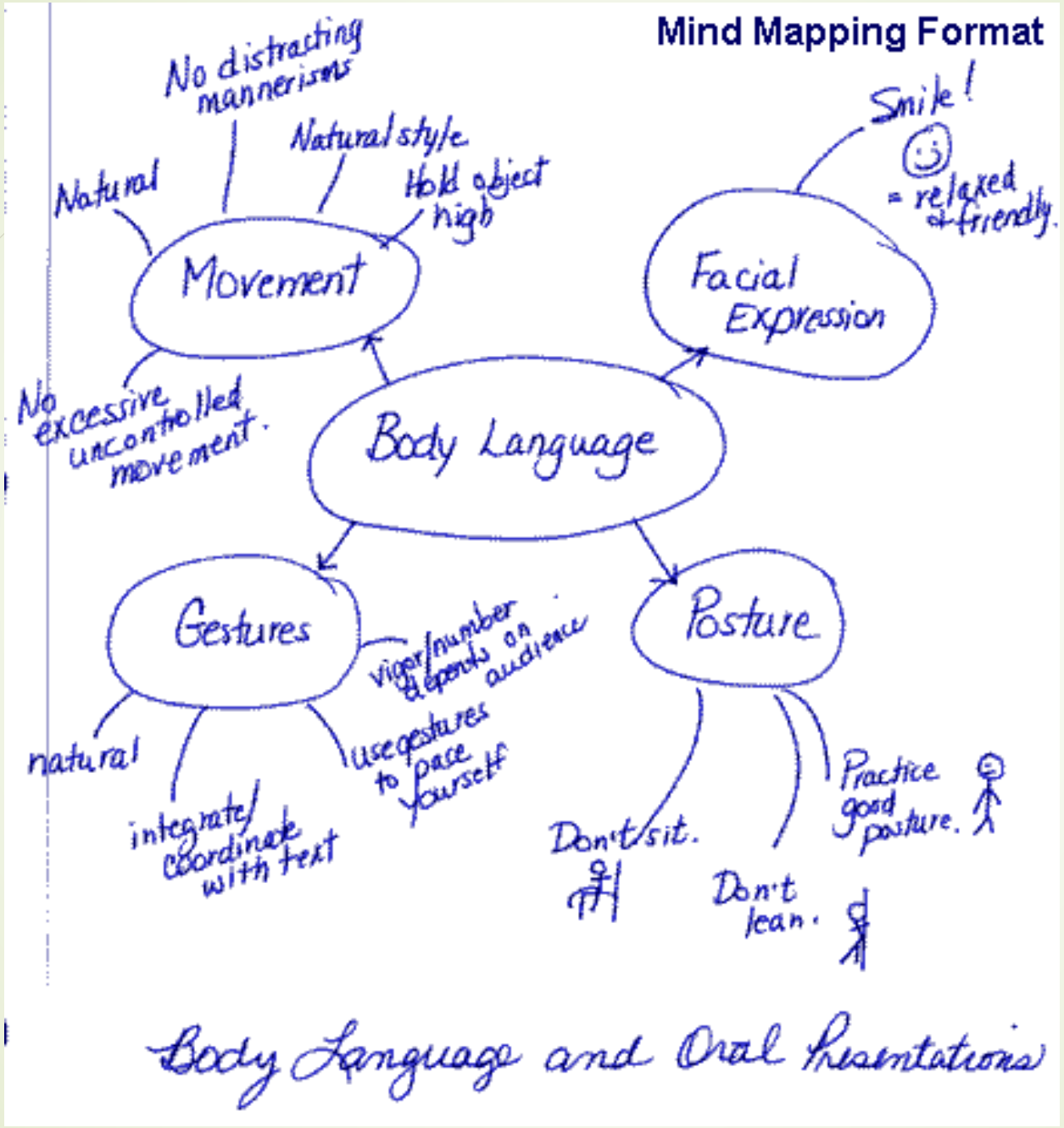
Why Use Slide Show Notes?

- Don't need to write as much
- Professor covers a lot of material
- Professor talks very fast
- Slide shows are an outline the professor gives to you of what they think is important

Mind Map

Mind Map Method

- How to use Mind Map Method
  - Draw circle in middle of paper and write in main topic
  - Branch off with trees to add sub-topics


Mind Mapping Format
Body Language
Movement
Natural
No distracting mannerisms
Natural style
Hold object high
No excessive uncontrolled movement.
Facial Expression
Smile!
= relaxed & friendly.
Gestures
natural
integrate/ coordinate with text
vigor/number depends on audience
use gestures to pace yourself
Posture
Don't sit.
Don't lean.
Practice good posture.
Body Language and Oral Presentations

Why Use the Mind Map Method?

- Great for visual learners
- Organized
- Can see all topics and how they are connected
- Comprehensive list

When to Use the Mind Map Method

- Best used as study tool rather than note taking due to time and space required to build it

Lesson Plans

- We are each going to give a brief lesson in a field we each know well.
- Pick two of the five note taking methods you believe will work the best for you.
- Use one of the two methods for each lesson, then use the other for the second lesson.

time for questions
Q&A