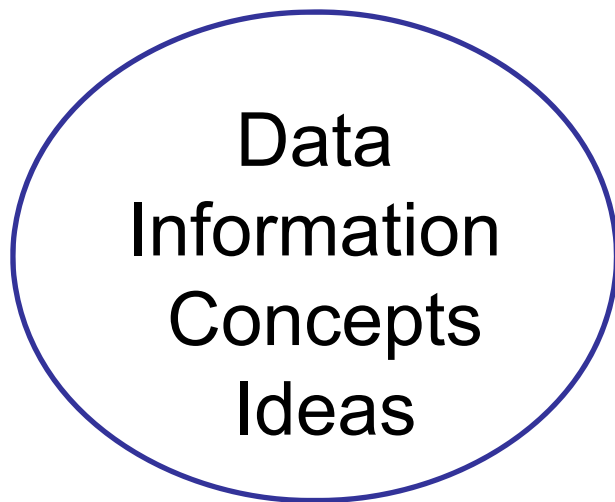


Fall 2019 VE300
Lecture notes
Week 7

Visual literacy = Ability to create & interpret visual messages



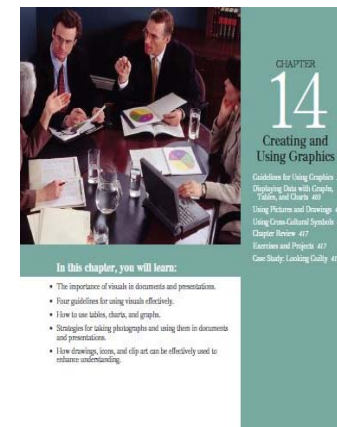
Matching graphics to objectives

**Communication
Needs**



**Effective
visual
choices**

Assigned reading



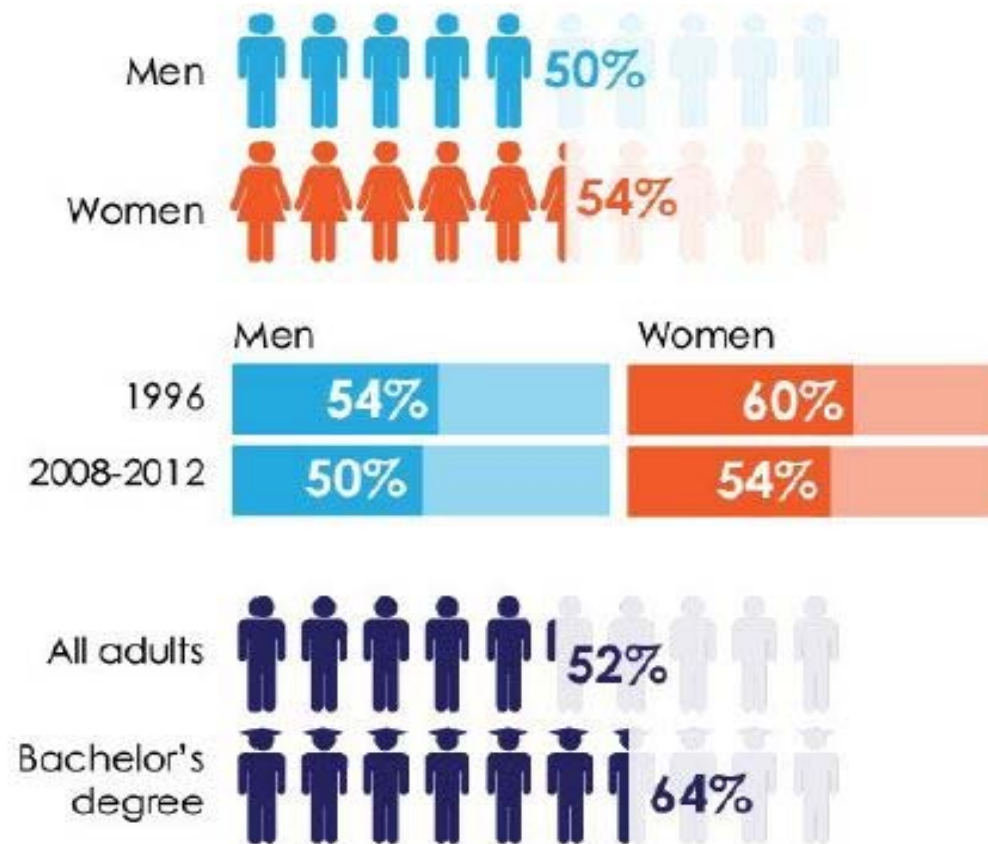
Displaying Data with Graphs, Tables, & Charts

Choosing the appropriate graphic

The Story to Be Told	Best Graphic	How Data Are Displayed
"I want to show a trend."	Line graph	Shows how a quantity rises and falls, usually over time
"I want to compare two or more quantities."	Bar chart	Shows comparisons among different items or the same items over time
"I need to present data or facts for analysis and comparison."	Table	Displays data in an organized, easy-to-access way
"I need to show how a whole is divided into parts."	Pie chart	Shows data as a pie carved into slices
"I need to show how things, people, or steps are linked together."	Flowchart	Illustrates the connections among people, parts, or steps
"I need to show how a project will meet its goals over time."	Gantt chart	Displays a project schedule, highlighting the phases of the work

Data about people:

Married only once Age 15+, 2008-2012

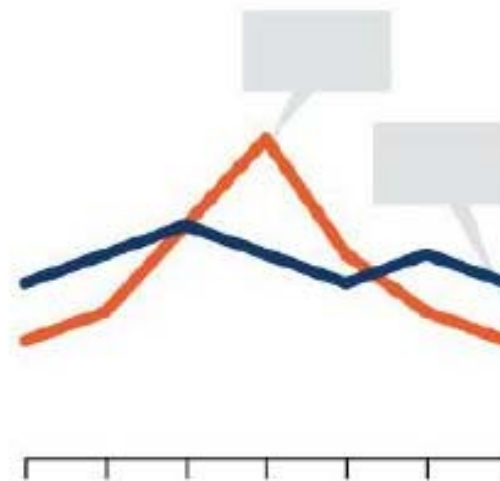


Trending: Rise vs. decline

Comparison vs. competition

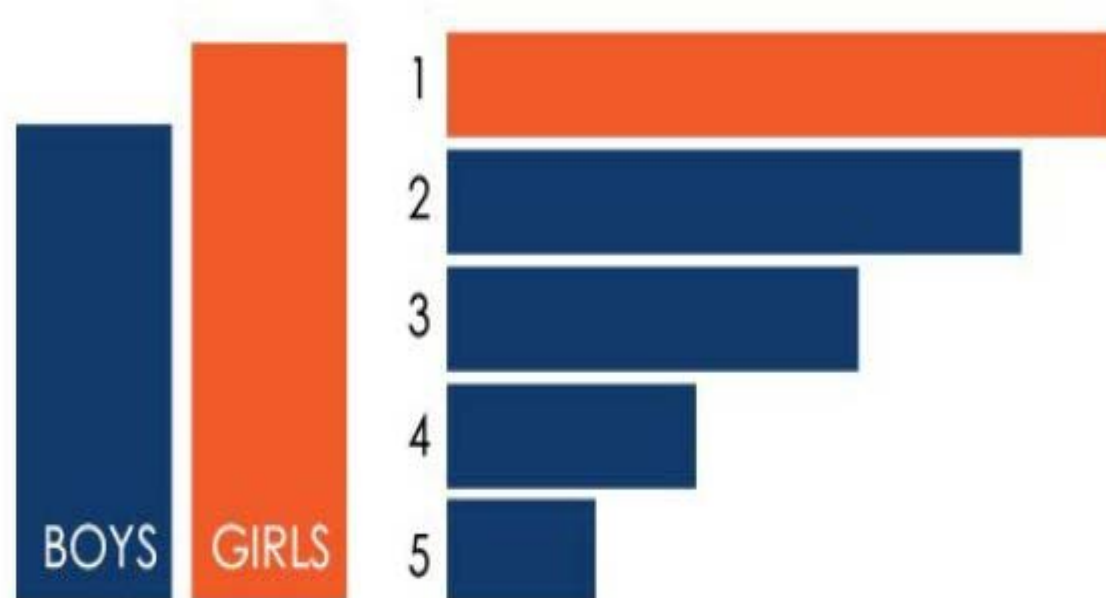


Area chart

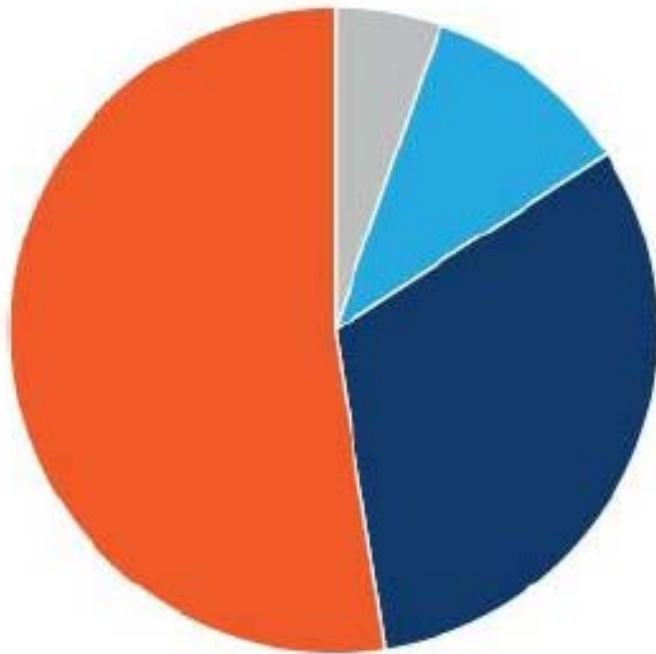


Line chart

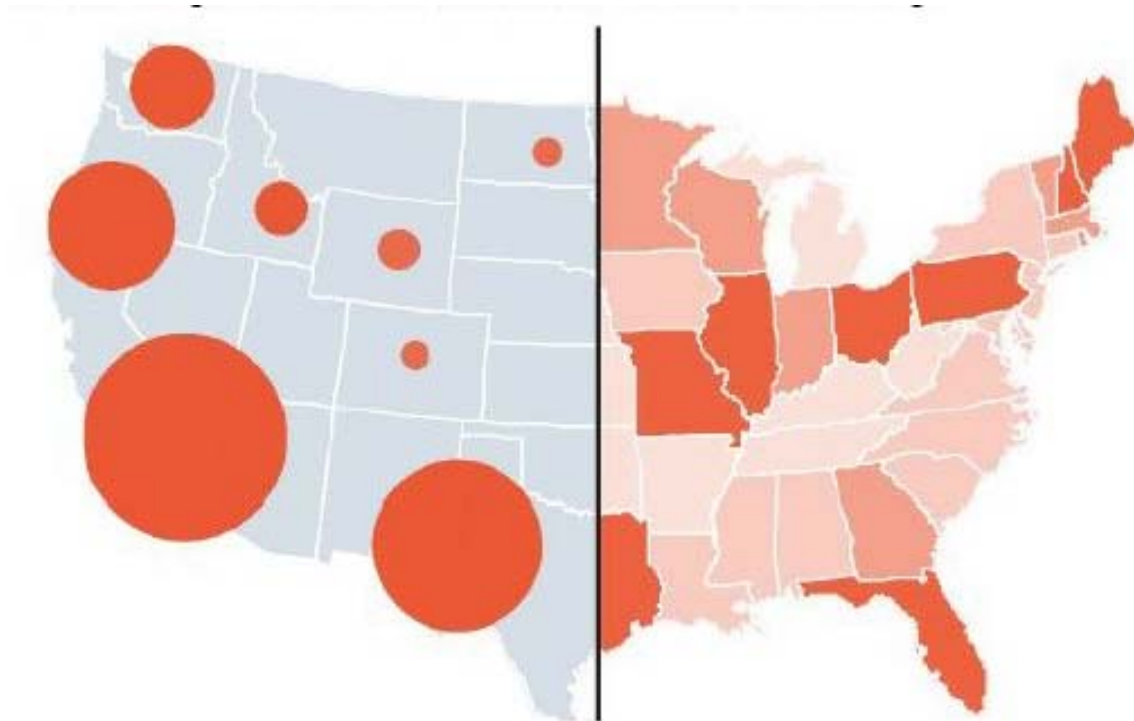
Listing & ranking



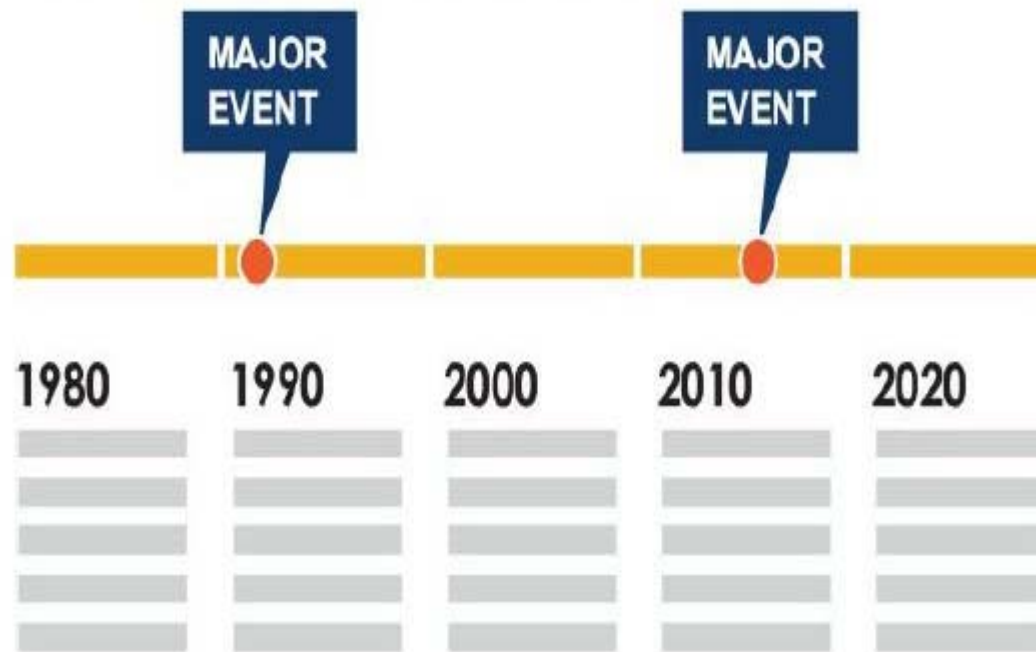
Parts in a whole



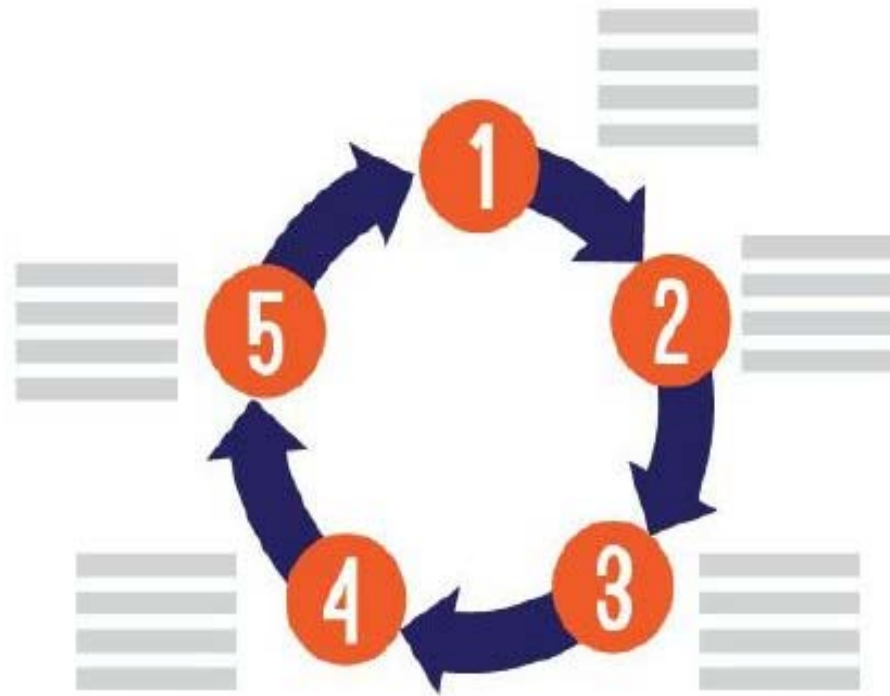
Data associated with location



Chronology: major & minor events

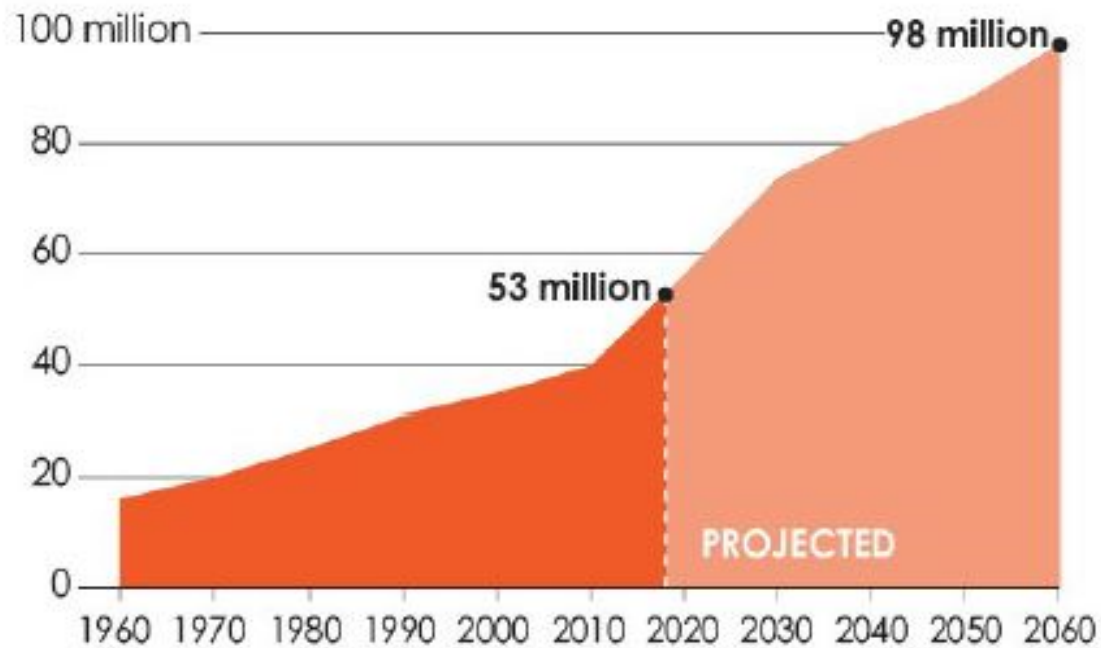


Circular = cycle, something ongoing



Making a forecast

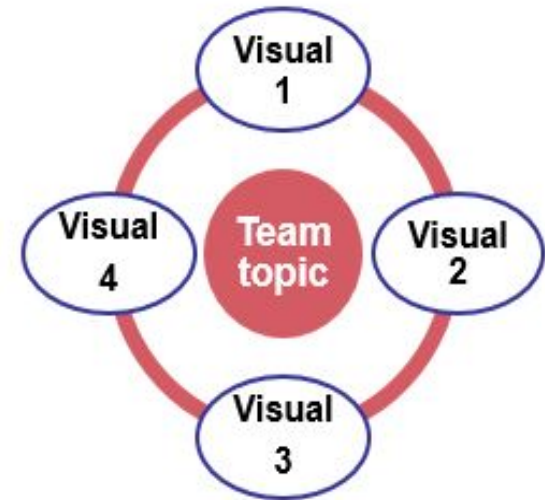
U.S. population age 65+



Source: U.S. Census Bureau

When to use visuals?

- To clarify, simplify, emphasize
- To attract with visual symbolism
- To impress with real evidence
- To enhance verbal messages
- To unify spoken words & visual meaning



About visual aids:

- Using visuals makes the speech more interesting
- Visuals also increases your credibility.
- Visual aids should NOT become the presentation
- Your message is more important than the visual

Planning your visuals:

Consider **aspects** of your topic that visual presentation can make clear.

Visuals cannot always speak for themselves.

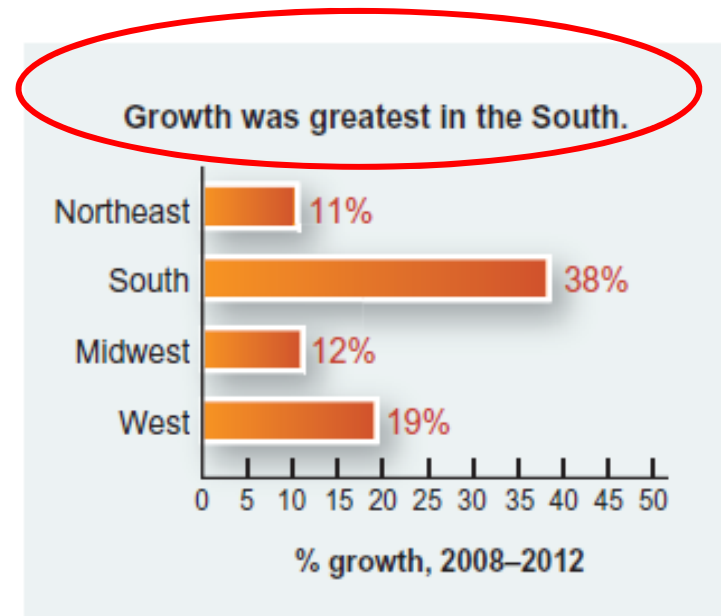
Make sure your audience has **enough context** to understand your visuals correctly.

Give context for understanding your visuals:

- Titles
- Legends
- Citation

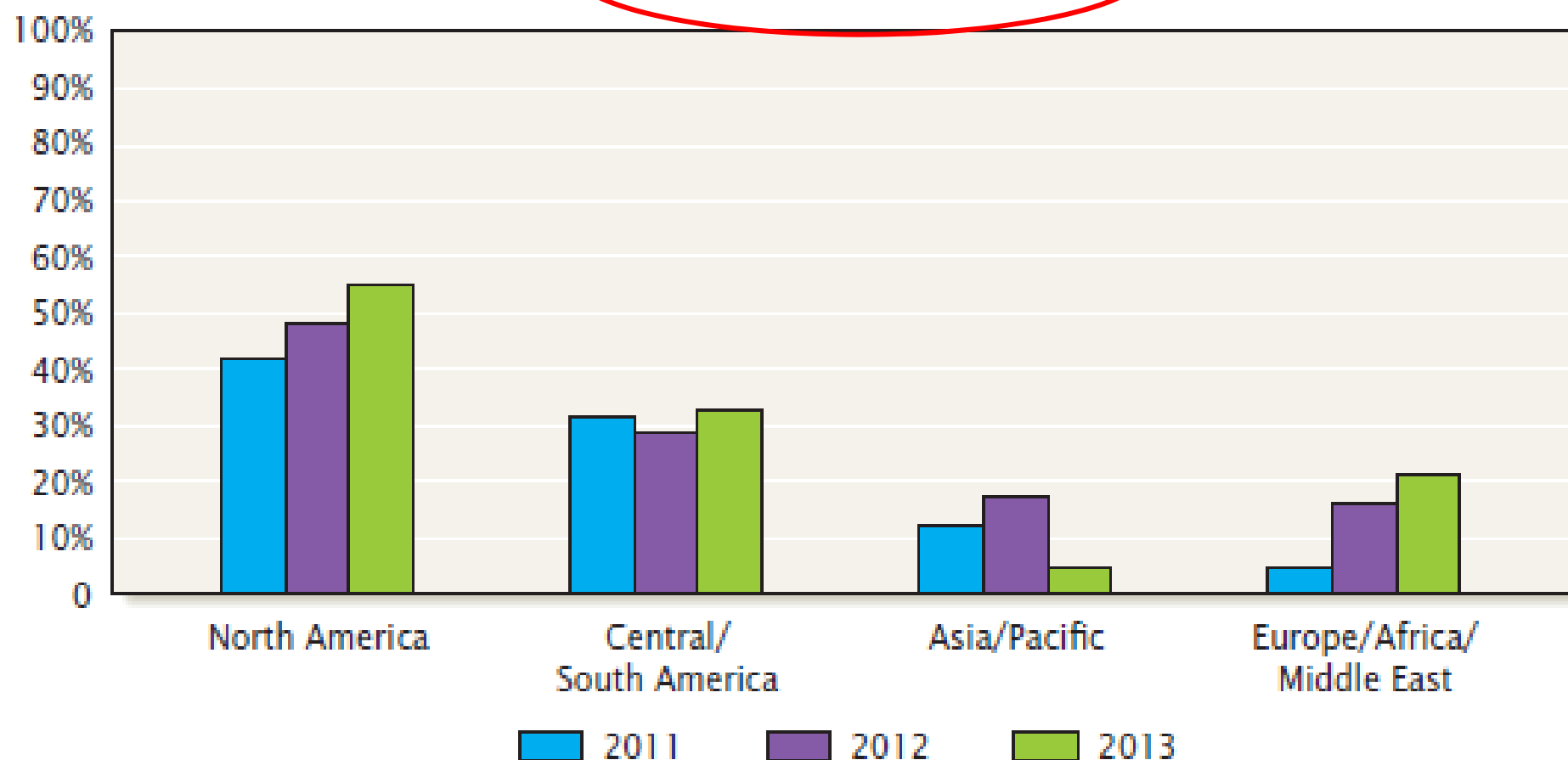
Give each visual **a TITLE** that makes a point

- Don't need figure numbers



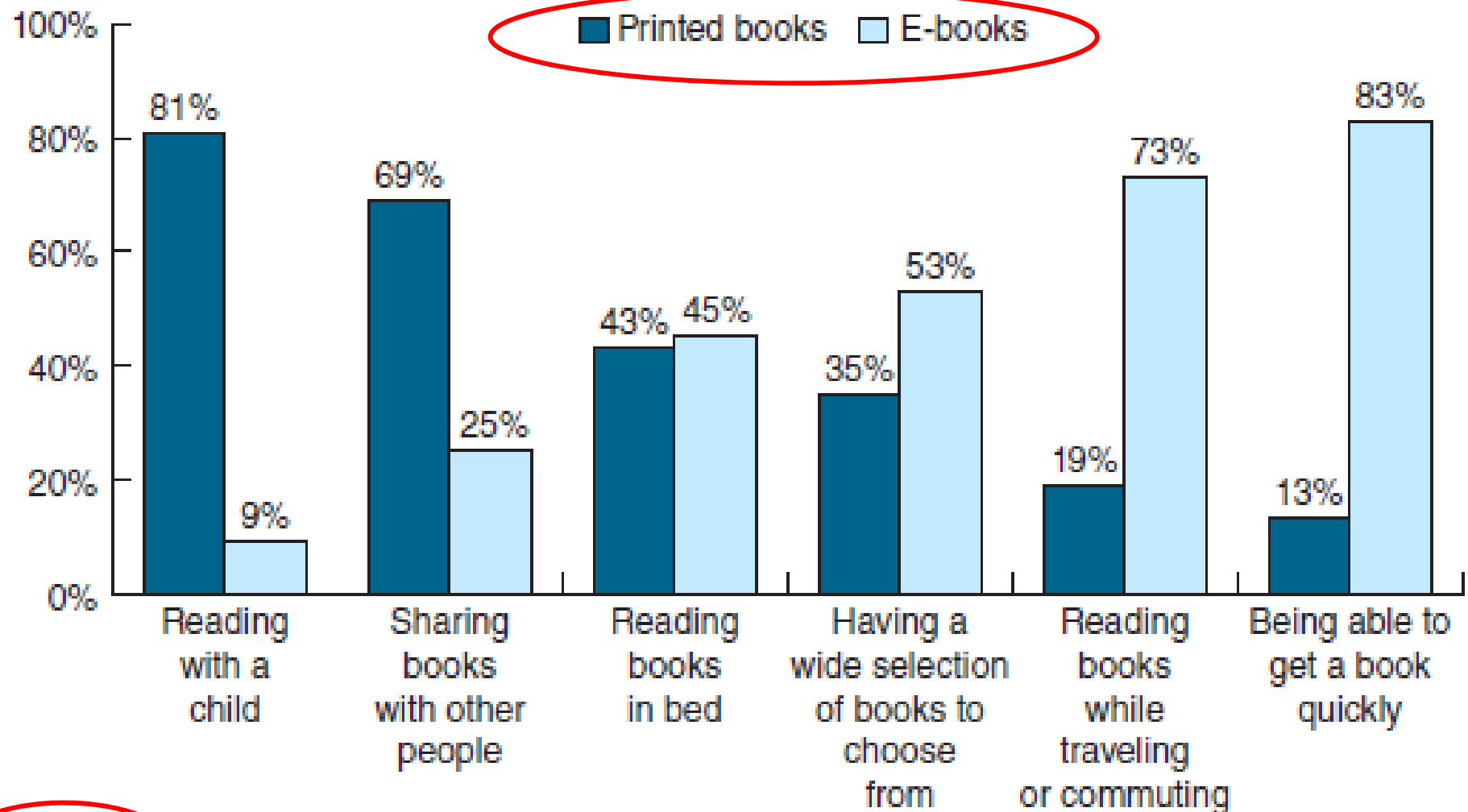
Titles Legends

(b) Worldwide Market Share



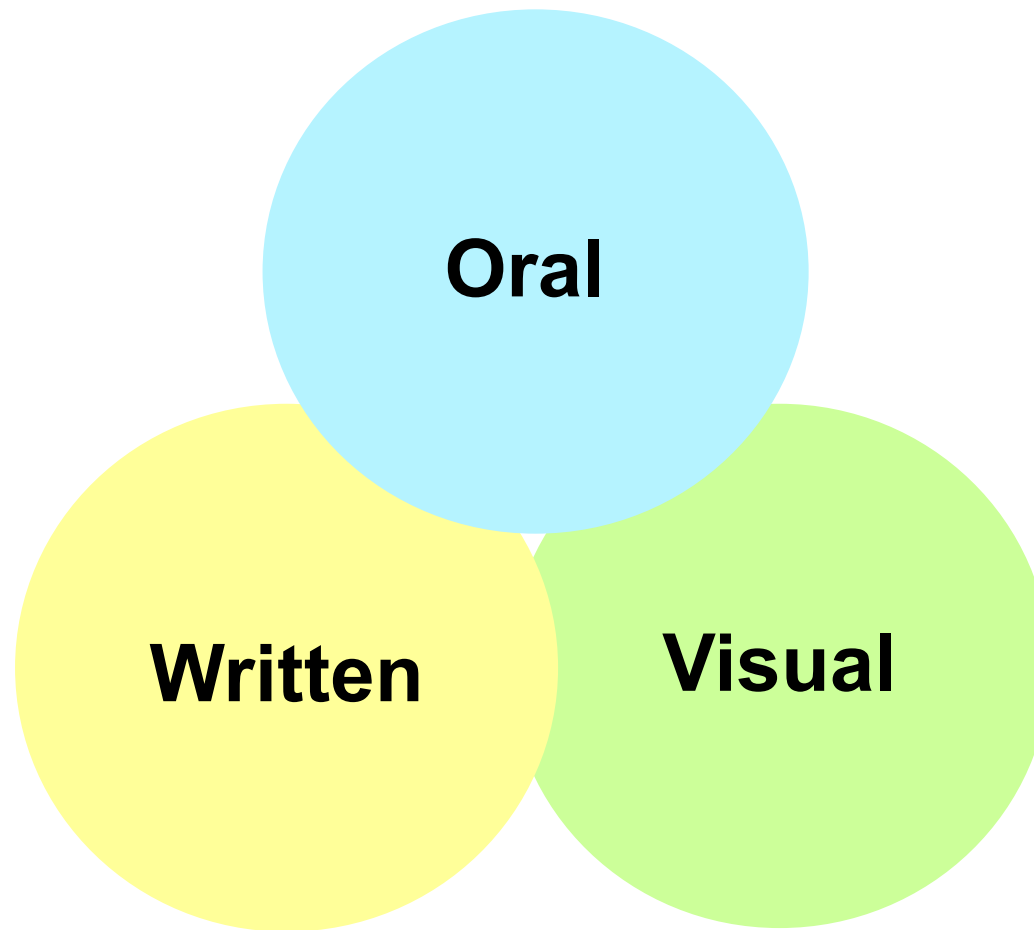
Which is better for these purposes, a printed book or an e-book?

% of those who have read both e-books and printed books in the last 12 months who say that this format is better for these purposes



Source: Lee Rainie, et al., "The Rise of e-Reading," *Pew Internet & American Life Project*, Pew Research Center, 4 Apr. 2012, Web, 24 May 2013.

Technical Communication
= convergence of multiple channels
Multi-modality



Scoring criteria:

As a group:

- Do you introduce enough context for understanding the visuals?
- Are the visuals logically related?

As an individual speaker:

- How well do you explain the visual messages in the slides?

Can I use the same visuals in my report
and my presentation?

No.

For presentations, simplify
paper visuals.

The **KISS** principle

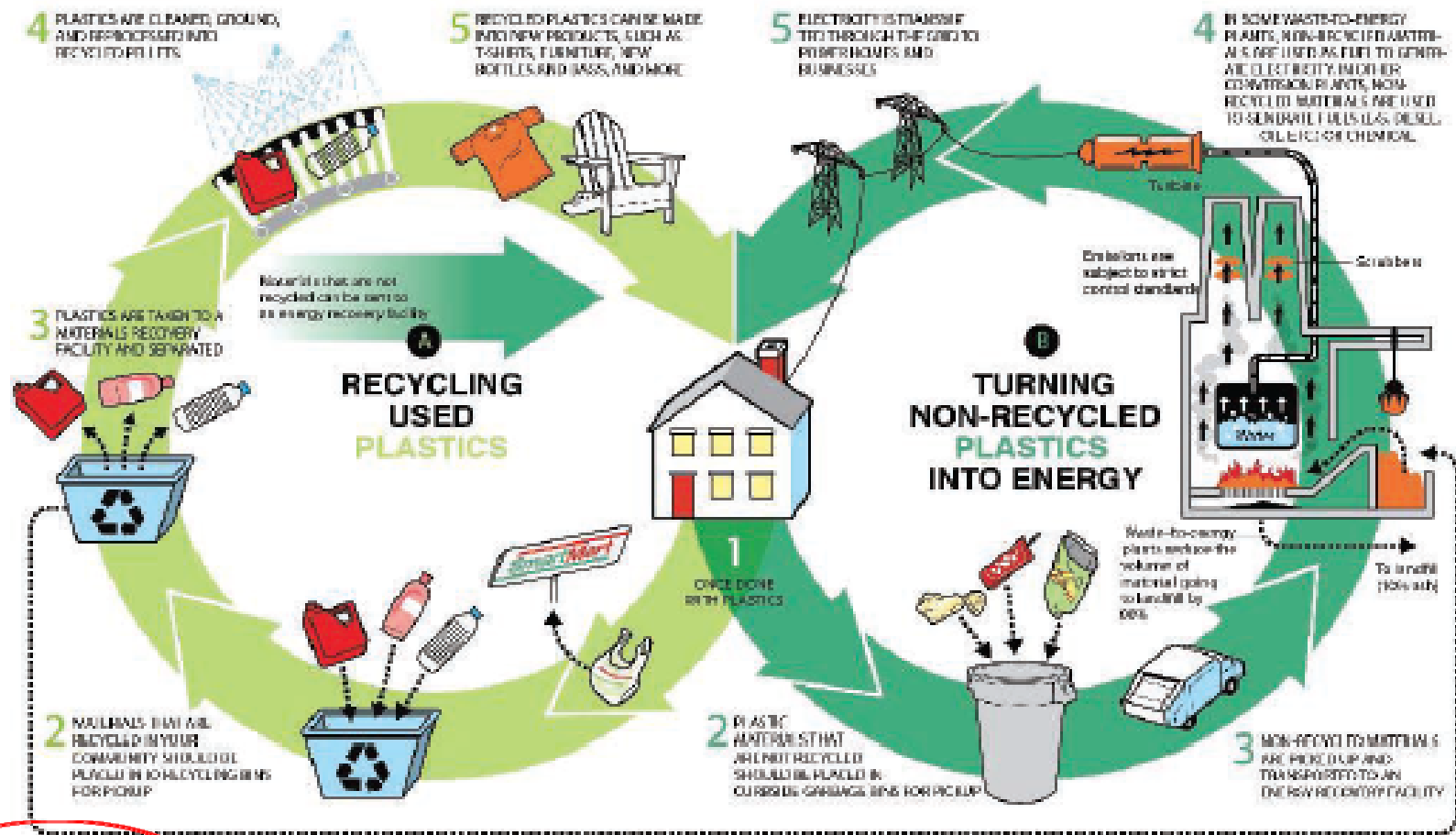
Keeping

It

Simple

Sweet heart

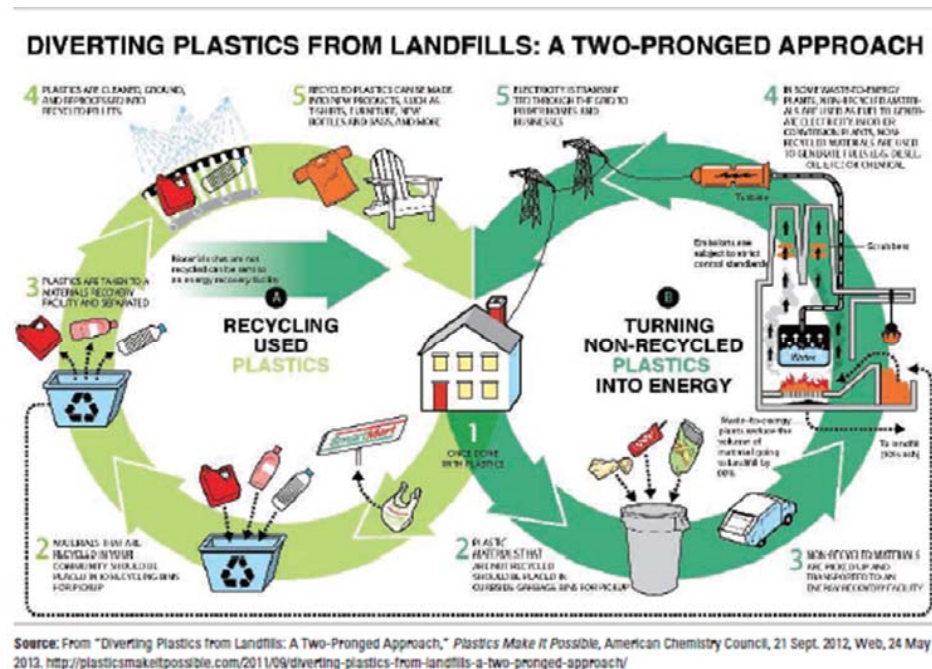
DIVERTING PLASTICS FROM LANDFILLS: A TWO-PRONGED APPROACH



Source: From "Diverting Plastics from Landfills: A Two-Pronged Approach," *Plastics Make it Possible*, American Chemistry Council, 21 Sept. 2012, Web, 24 May 2013. <http://plasticsmakeitpossible.com/2011/09/diverting-plastics-from-landfills-a-two-pronged-approach/>

Planning visuals for presentations:

- Break a complicated point down into several visuals.

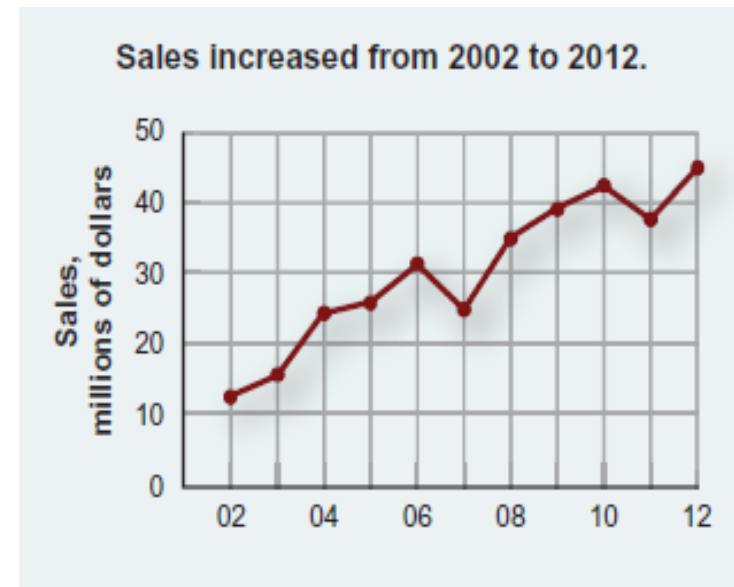


Preparing visuals for presentations:

- **Limit** the amount of information on a visual.
- **Use** simple graphs, not complex ones.

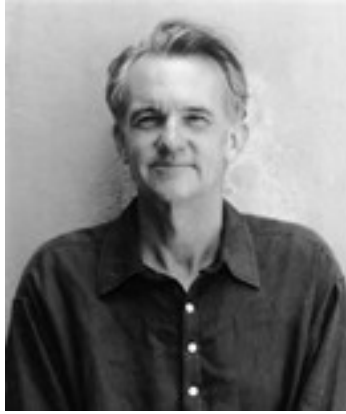
U.S. sales reach \$44.5 million.

	Millions of dollars		
	2010	2011	2012
Northeast	10.2	10.8	11.3
South	7.6	8.5	10.4
Midwest	8.3	6.8	9.3
West	11.3	12.1	13.5
Totals	37.4	38.2	44.5



Design elements:

- Color scheme
- Font type & size
- # of main idea per slide
- # of bullet points per slide
- Position and size of visual aids



Edward Tufte (1942-)

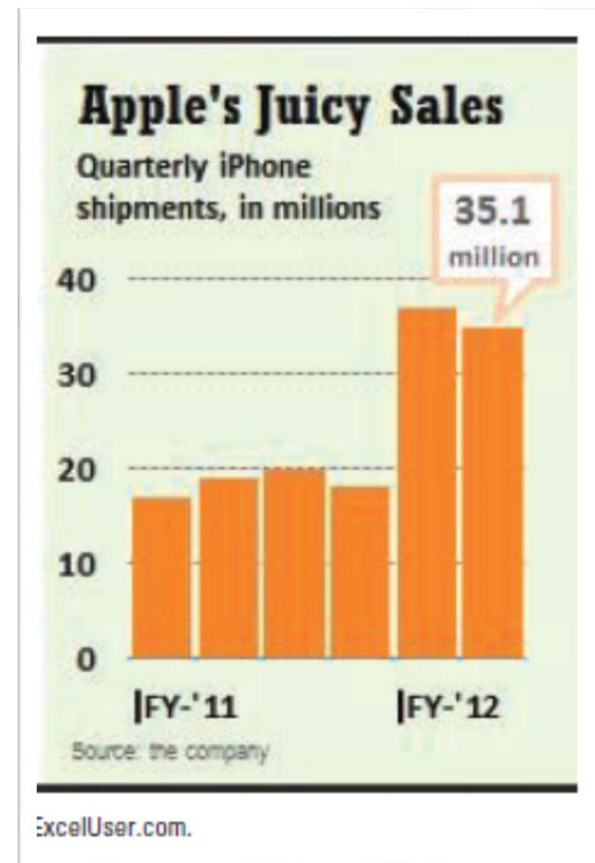
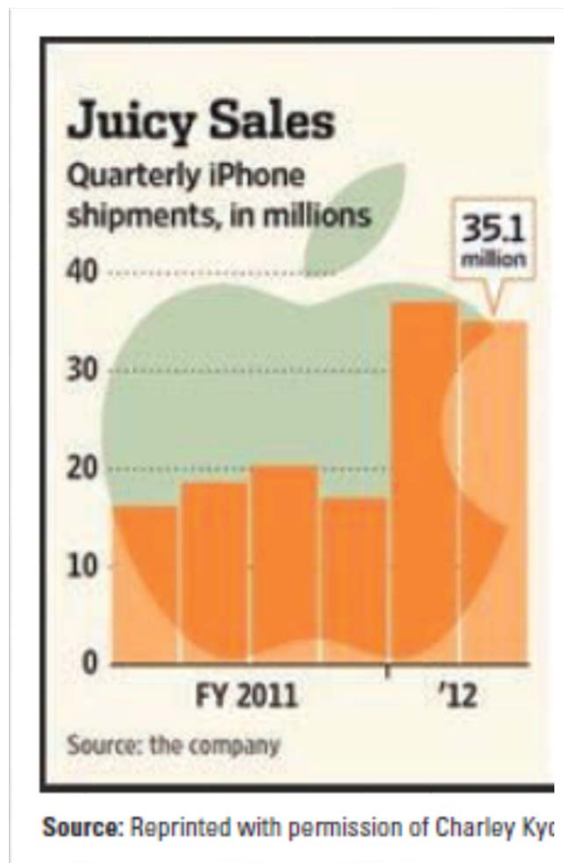
Information design
Data visualization

Chartjunk:

Any element in a visual that is either **unnecessary** or **irrelevant** to the reader's understanding of the data or that **impede** or **distract** from a reader's ability to understand the data.

Charts about iPhone sales

Same data, different design



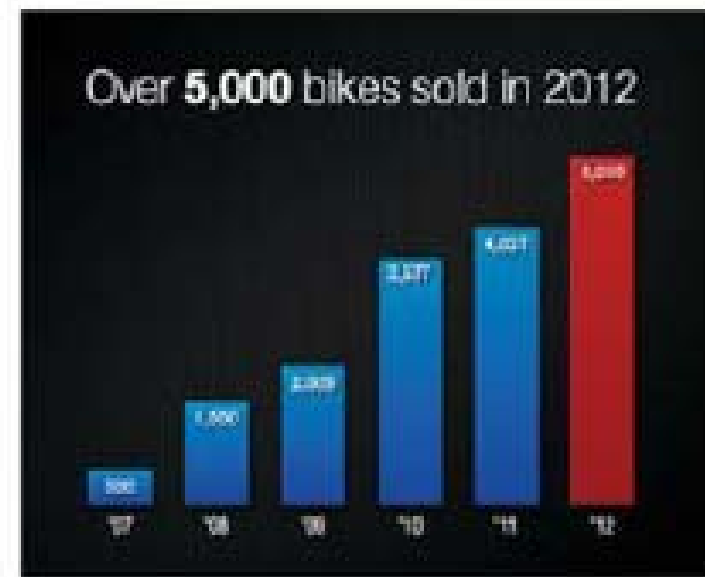
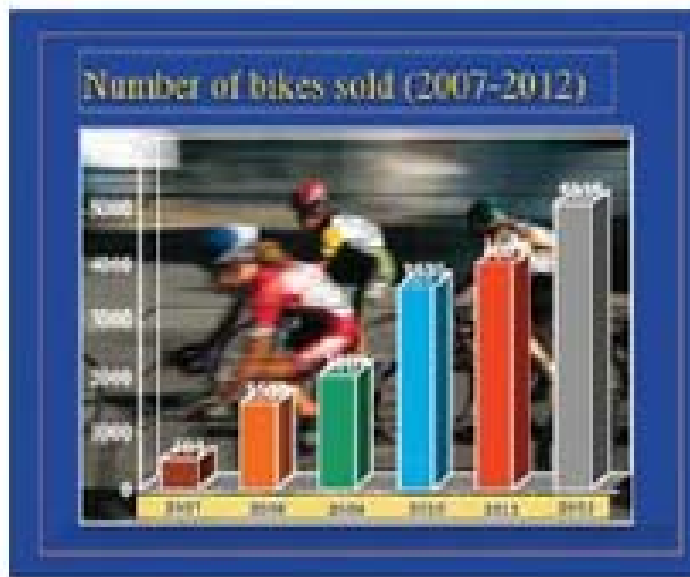
Slide preparation
Oral delivery

Preparing your slide:

- Color scheme → **sufficient contrast**
- Font type & size → **minimum 24 for body text**
- # of main idea per slide → **1**
- # of bullet points per slide → **no more than 6**
- Position and size of visual aids → **balance & alignment**

Chartjunk in a visual:

Those elements that “act as noise where your readers need silence.”



Applying colors to visuals

Tip #1:

If you want objects in a table or graph to be easily seen, use a background color that *contrasts* sufficiently with the object.

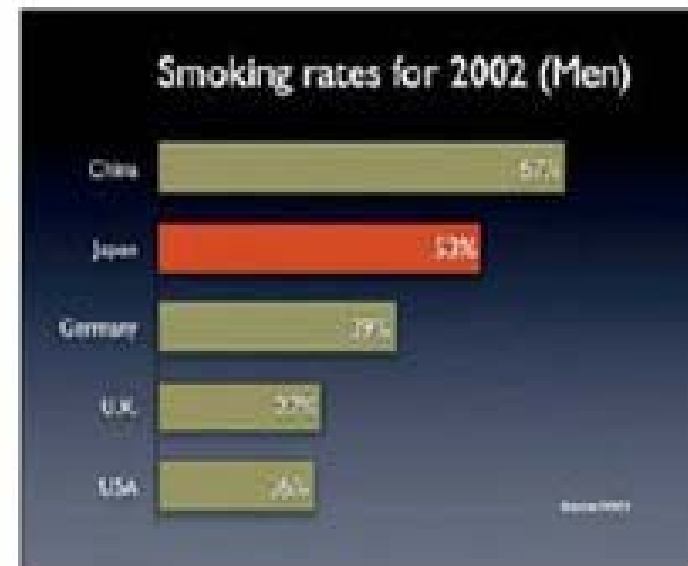
Tip #2:

Color should be used to *enhance data*, not for decoration. In many cases, less color may be better.

BEFORE



AFTER



Psychological anxiety

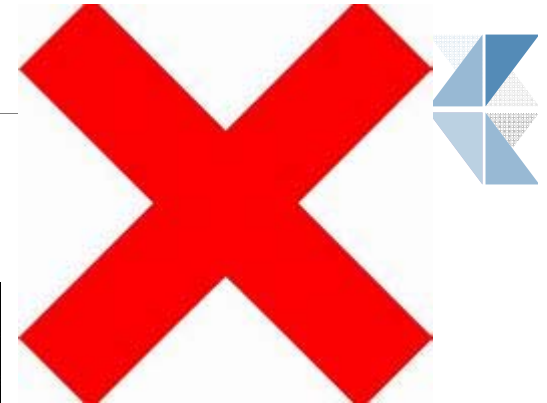
Genetic test arouse short-term increases in hopelessness.



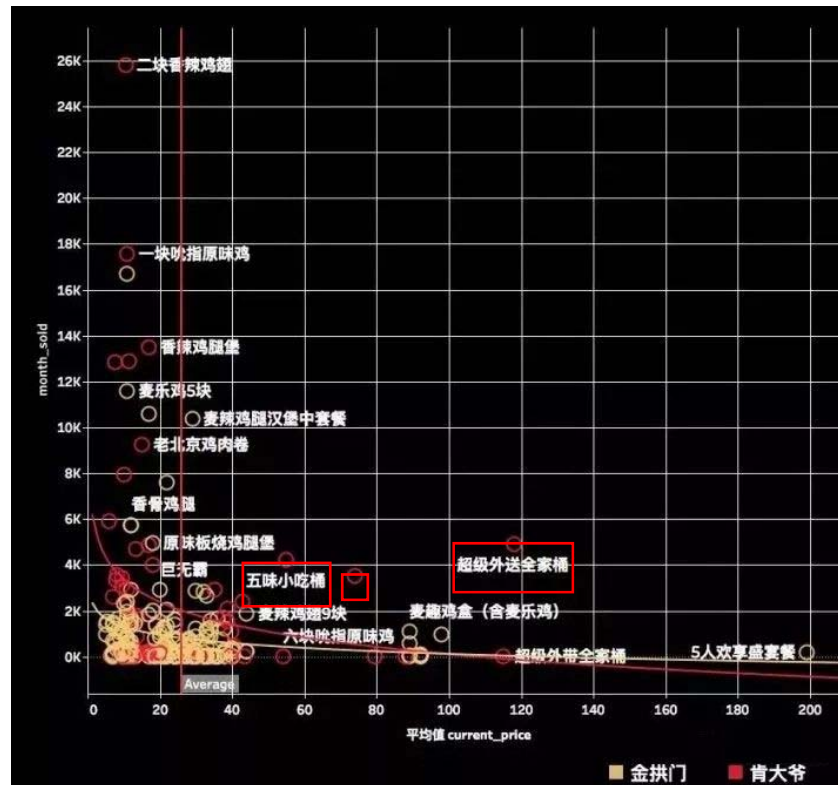
<i>Study</i>	<i>Type</i> [*]	<i>Sample</i>	<i>Instrument</i> [†]	<i>Findings</i> [‡]	
				<i>7-10 days</i>	<i>12 months</i>
Wiggins et al, 1992 ²³ 58 noncarriers	LA	37 carriers	SCL-90	Significantly higher	NS
	GWS	Significantly lower 40 no result [§]	BDI	Significantly higher	NS
Tibben et al, 1994 ²⁴	LA	20 carriers	IES Avoidance	Significantly higher	NS (6 months)
		44 noncarriers	BHS	Significantly higher	NS (6 months)
Codori et al, 1997 ²⁶	LA MA	52 carriers	BDI	Not available	NS
		108 noncarriers	BHS	Not available	Significantly higher
Quaid and Wesson, 1995 ²⁹	LA	5 carriers	SCL-90	Not available	Significantly higher
		14 noncarriers			
Decruyenaere et al, 1996 ³⁰	LA MA	22 carriers	STAI	NS	NS
		31 noncarriers	BDI	NS	NS
Dukok de Wit, 1997 ²⁵	MA	9 carriers	IES	NS	NS (6 months)
		16 noncarriers			

Source: Studies on the psychological effects of genetic testing for Huntington's disease [3]

Environmental Factor



- KFC
- McDonalds



Navigation slides

Help your audience **keep track** of what you've covered already and what you plan to cover next.

Title slide

The Effects of Climate Change on the West



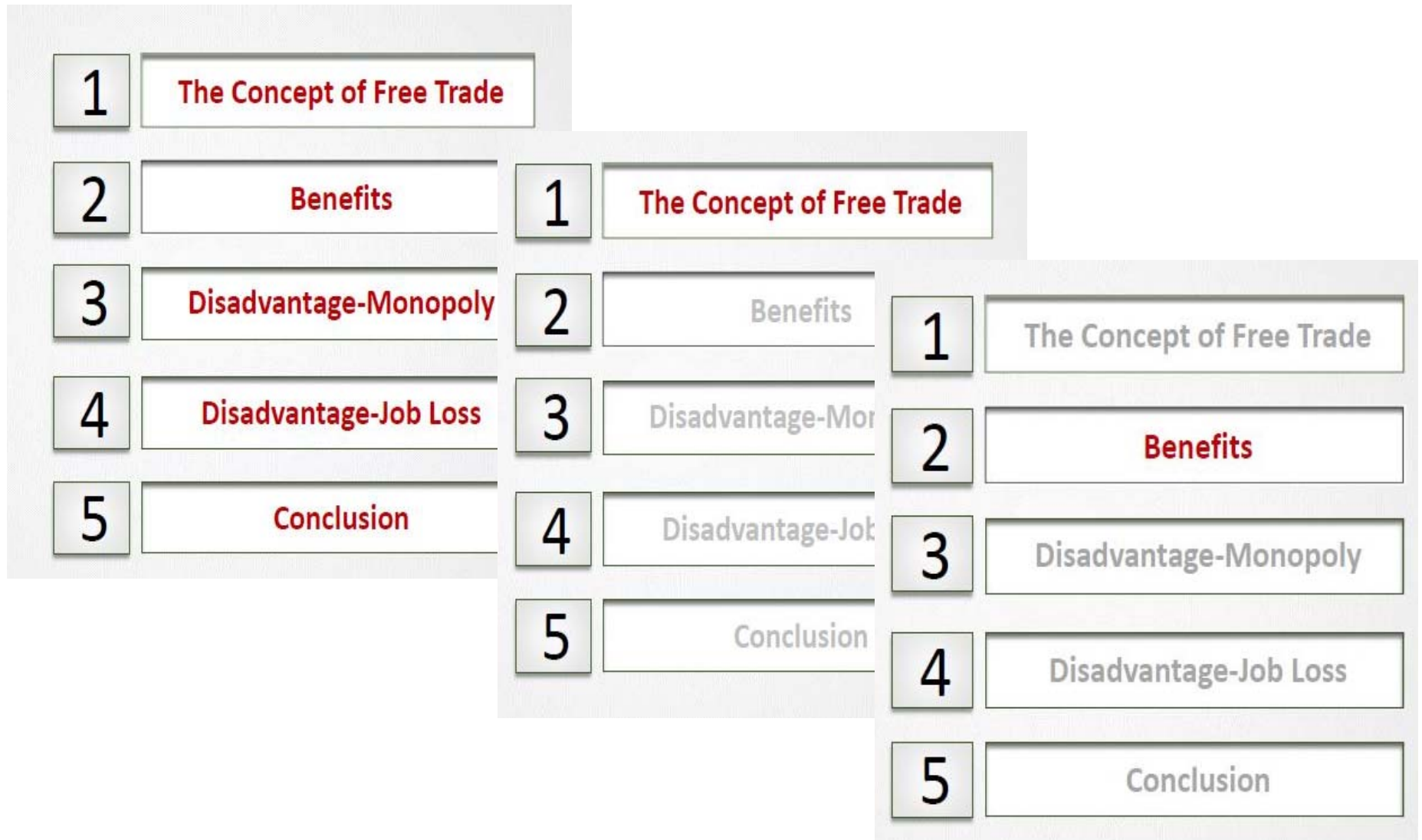
Presented by Angela Hampton-Jenkins
Northern Arizona University

Outline slide

Causes of Climate Change

- Increase in CO₂ Emissions
- Releases of Methane Gas
- Other "Greenhouse" Gases
- Thinning Ozone Layer
- Natural Warming and Cooling Cycles

Blueprint slides



Blueprint slides

Today's topics

- ✓ Exploring the new media options
- ✓ Developing an executive blog
- Using podcasts to reach a mobile workforce
- Encouraging collaboration with wikis



Today's topics

- Exploring the new media options
- Developing an executive blog
- Using podcasts to reach a mobile workforce
- Encouraging collaboration with wikis



Before revision

Reasons for Selling Online

- Your online business can grow globally.
- Customer convenience.
- You can conduct your business 24/7.
- No need for renting a retail store or hiring employees.
- Reduce inquiries by providing policies and a privacy statement.
- Customers can buy quickly and easily.

After revision

Why You Should Sell Online



Grow business globally.



Offer convenience to customers.



Conduct business 24/7.



Save on rent and staff.



Create policies to reduce inquiries.

NONPARALLEL

The sequence we follow:

1. Writing of the outline
2. Do library search
3. Interview with the president
4. First draft
5. Revision of first draft
6. Preparing the final draft

PARALLEL

The sequence we follow:

1. Write the outline
2. Do library research
3. Interview the president
4. Write the first draft
5. Revise the first draft
6. Prepare the final draft

Understandability

- Font size is large enough (24 or bigger)
- Sufficient color contrast
- Titles are short, easy to read, and meaningful
- Legends are clear and easy to understand
- Citation as needed
- All contents have been proof-read

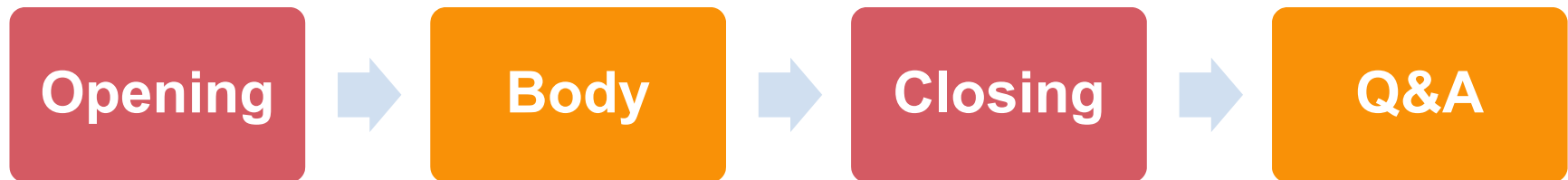
16% Presentation (points may vary)

8% Presentation slides

Delivering your content:

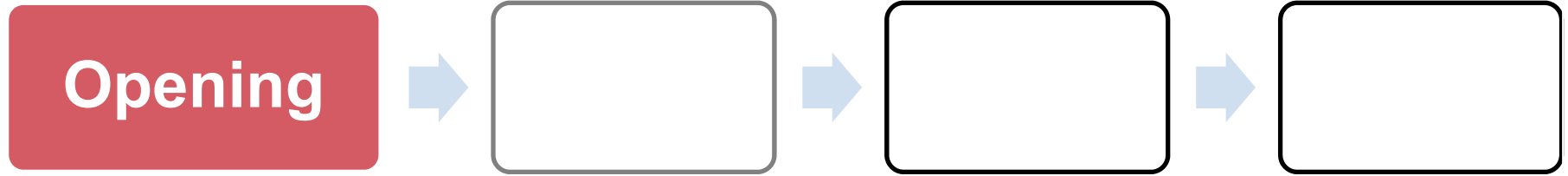
1. Know the sequence of your ideas
2. Commenting on visuals

2. Know the sequence of your ideas



First 3 minutes

1. **Get** the audience's attention
2. **Introduce** your subject
3. **Give** the audience a reason to listen
4. **Establish** your credibility
5. **Preview** your main ideas



Hook:

1. A problem to think about
2. Some amazing facts
3. A story or personal anecdote

Creating your **hook**:

Story telling

Emotional appeal

Dramatic impact

- Use a **one-on-one** conversational tone
- Use the “**you**” attitude

Problem	Amazing facts	Story
---------	---------------	-------

Suppose your advertising budget was cut by 99% tomorrow. How would you go about promoting your product?

Stating your purpose: Presentation verbs

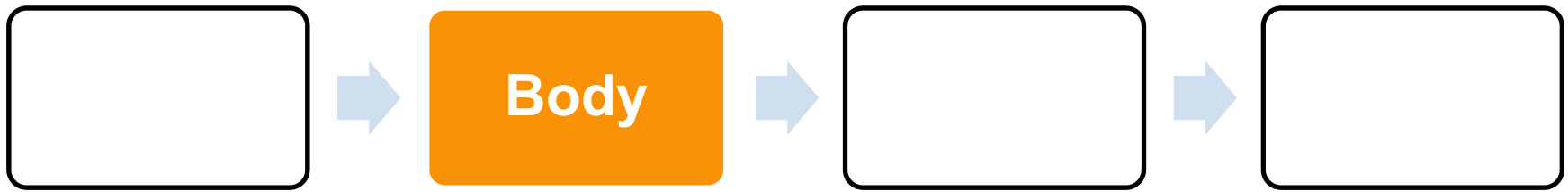
2 readers

Hello everyone. I'm (your name).

This morning I'm going to be **taking a look at** the recent boom in video game companies. I'll begin by **giving** you an **overview** of the history of online games. Then I'll go on to **make** detailed **recommendations** regarding our own R&D.

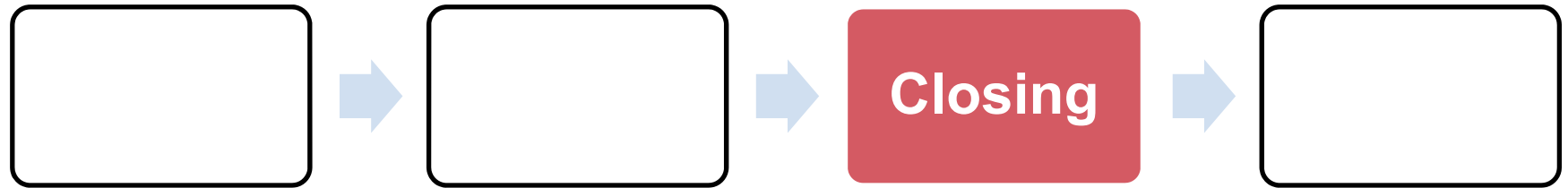
Hello everyone. I'm (your name).

This morning I'm going to be **talking to** you **about** the videophone project. I will begin by **filling** you **in** on the background for the project. Then I'll go on to **highlight** what I see as the main advantages of the new system.



TRANSITIONS:

1. I will now hand over to **CP** who will speak to you about funding opportunities.
2. So that's a summary of the situation. **FB** will now discuss why this has happened.
3. **AW** will now walk you through the company's projections for the future.
4. Having discussed the advantages, we can now examine the disadvantages. **XY** will help us highlight 3 major disadvantages.



- **Restate** your main point.
- **Refer to** your opening to create a frame for your presentation.
- **Suggest** directions for future research

Commenting on Visuals

1. **Highlights** Which parts of the visuals are most significant?
2. **Comments** Why?
3. **Conclusions** What conclusions can you draw?

I'd like us to *look at* this part of the graph in more detail

us to *focus our attention on* one particularly important feature.

you to *think about* the significance of this figure here

to *point out* one or two interesting details

to *draw your attention to* the upper half of the chart

lesson

message

significance

conclusions

implications

1.....to be drawn from this are....

2.....to be learned from this is...

Let me suggest

3.....of this are...

4.....of this is...

5.....here is...

3 main scoring criteria:

1. Connect with your audience

- eye contact
- voice quality

2. Know the sequence of your ideas

- make clear transition from one member to the next

3. Communicate with graphs

- visualize information

As a group:

- Do you introduce enough context for understanding the visuals?
- Are the visuals clearly and logically related?

As an individual speaker:

- How well do you explain the visual messages in the slides?

A decorative horizontal band with a blue and white wavy, geometric pattern, resembling a stylized water or fabric texture. It is centered on the slide.

Thank you!

www.umji.sjtu.edu.cn