

# Single numbers & parts of a whole



**Miscellanea**

**The Truthful Art**

**Working in Excel**

**R, Markdown, and R Markdown**

**Practice!**

# Miscellanea

# Memos and homework

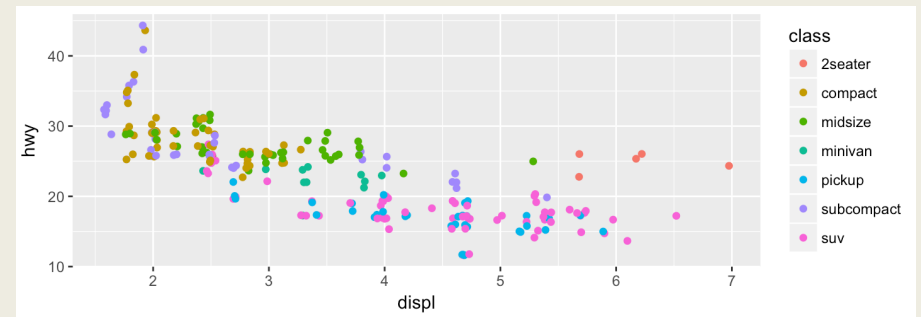
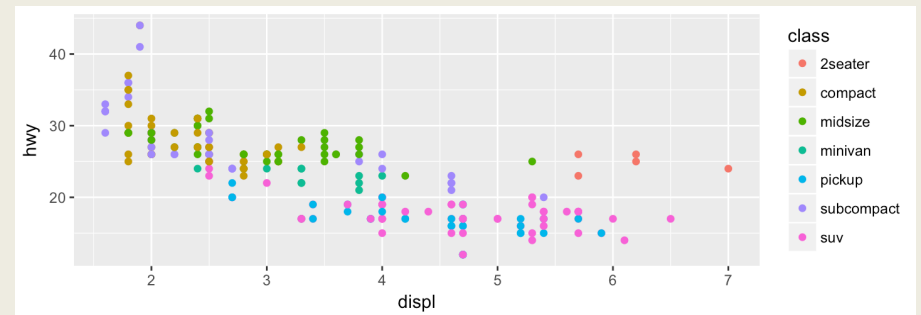
# Course policies

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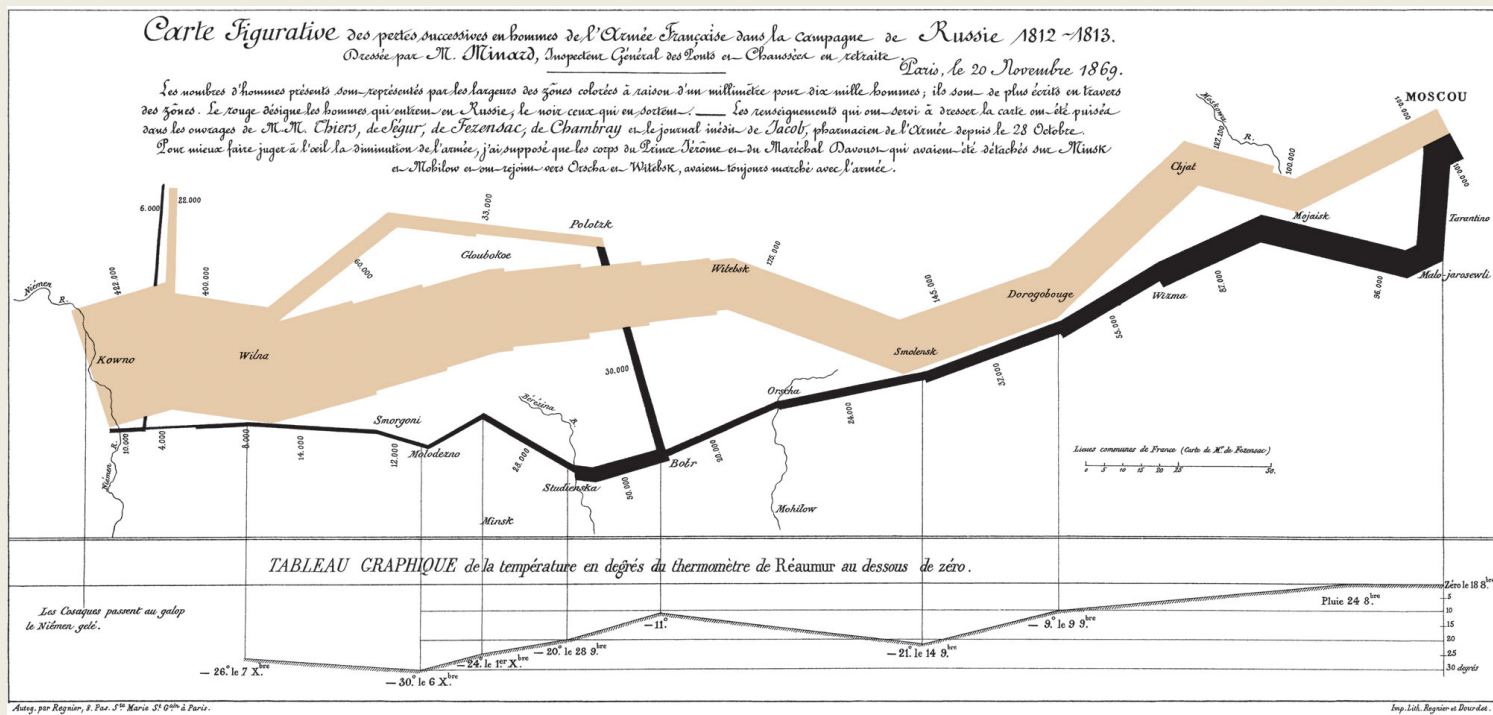
## *Class conduct and expectations*

On the first day of class we'll come up with rules, expectations, and policies for things like technology in the classroom, attendance, participation, late work, etc. I will put those here once we all agree.

# Facts $\neq$ Truth

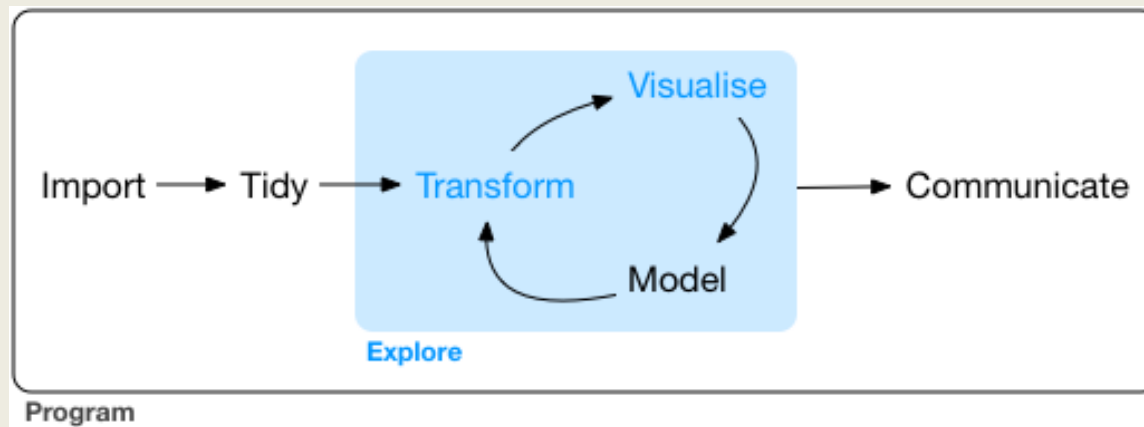


# Simplicity vs. the Data/Ink Ratio



# Purposes of visualization

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**Analysis**

**Exploration**

**Discovery**



# The Truthful Art

# Qualities of great visualizations

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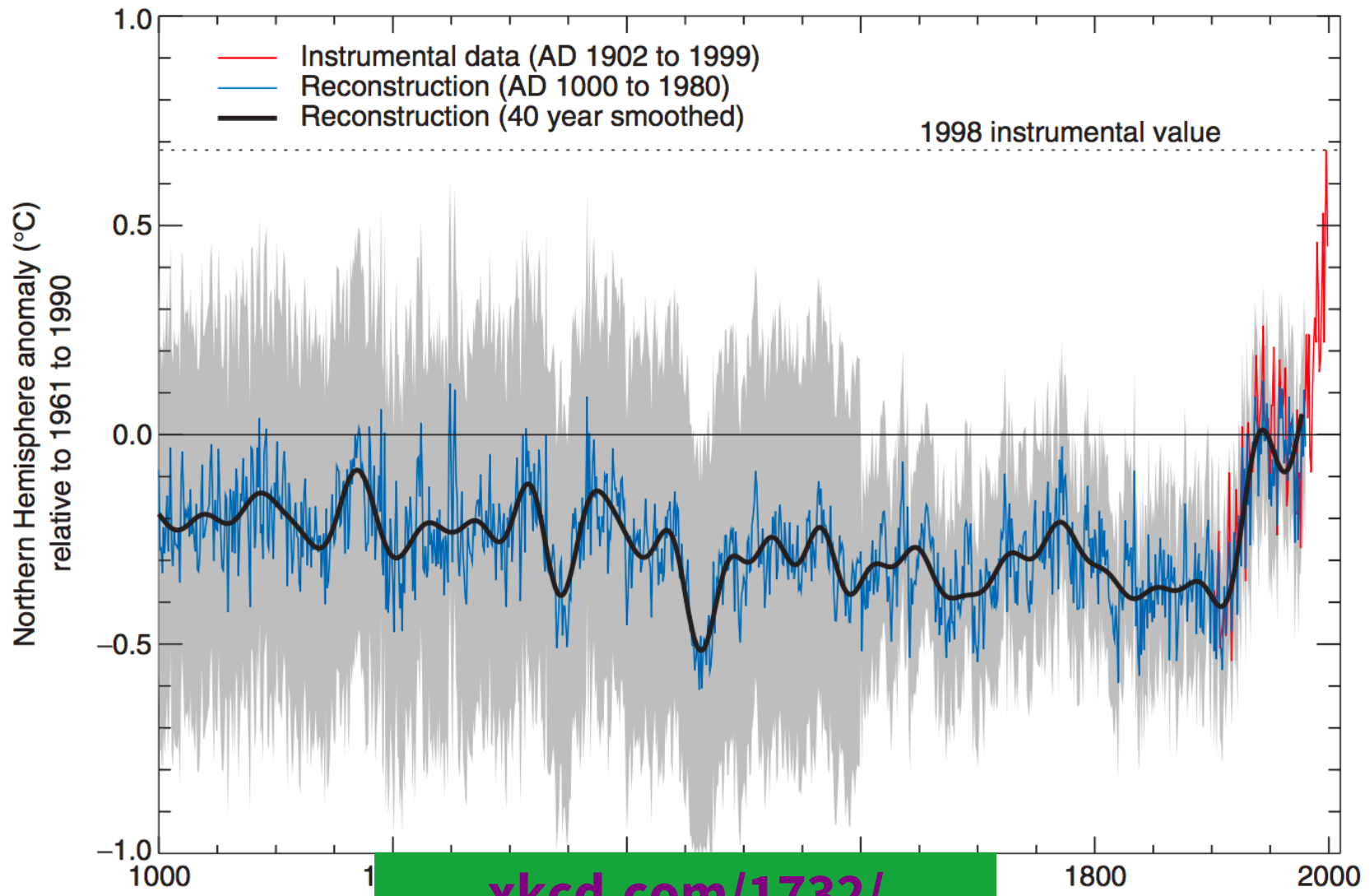
**Truthful**

**Functional**

**Beautiful**

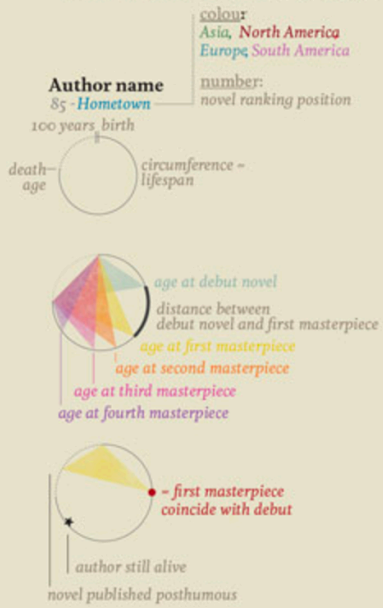
**Insightful**

**Enlightening**



## How to read it?

Authors are ordered from the earliest success to the last one.

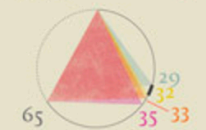


## From first published

**James T. Farrell**  
 29 - Chicago



**William Faulkner**  
 6, 35, 54 - New Albany



**Sinclair Lewis**  
 68 - Sauk Centre



**Anthony Burgess**  
 65 - Manchester



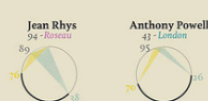
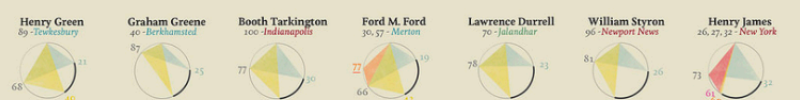
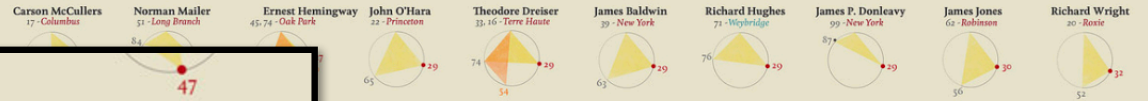
**Rudyard Kipling**  
 78 - Bombay




**John Steinbeck**  
 10 - Salinas



The visualization has been designed and produced by Acurat ([www.acurat.it](http://www.acurat.it)), and was originally published in Italian on *La Lettera*, the Sunday cultural supplement of *Corriere della Sera*.



*How to read*

*Masterpiece according to the Modern Library* —  — *Death*

*Place where the author was born*

 North America    Central and South America  
 Asia    Europe

*Age*

10   20   30   40   50   60   70   80   90   100

Normal Mailer



Ernest Hemingway



James Baldwin



Jerome D. Salinger



James Joyce



Iris Murdoch



Elizabeth Bowen



Erskine Caldwell



# Coins

30 times

# What gets in the way of truth?

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**Patterns**

**Lies and deception**

**Storytelling and confirmation**

# Patterns

frontiers in  
**NEUROSCIENCE**

REVIEW ARTICLE  
published: 22 August 2014  
doi: 10.3389/fnins.2014.00265



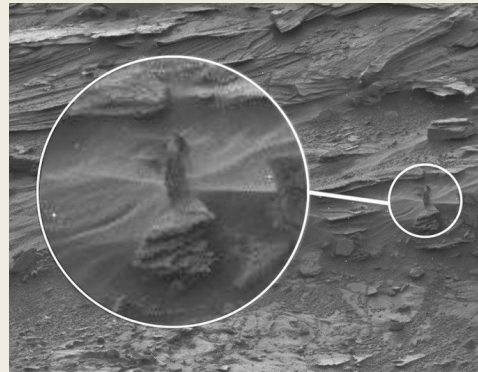
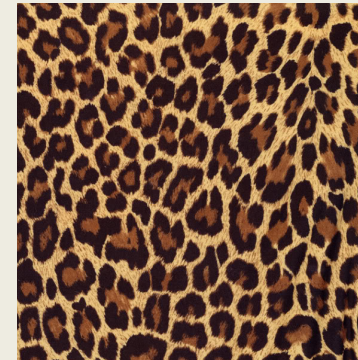
## Superior pattern processing is the essence of the evolved human brain

Mark P. Mattson<sup>1,2\*</sup>

<sup>1</sup> Laboratory of Neurosciences, National Institute on Aging Intramural Research Program, Baltimore, MD, USA  
<sup>2</sup> Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, MD, USA

**Edited by:**  
J. Michael Williams, Drexel  
University, USA

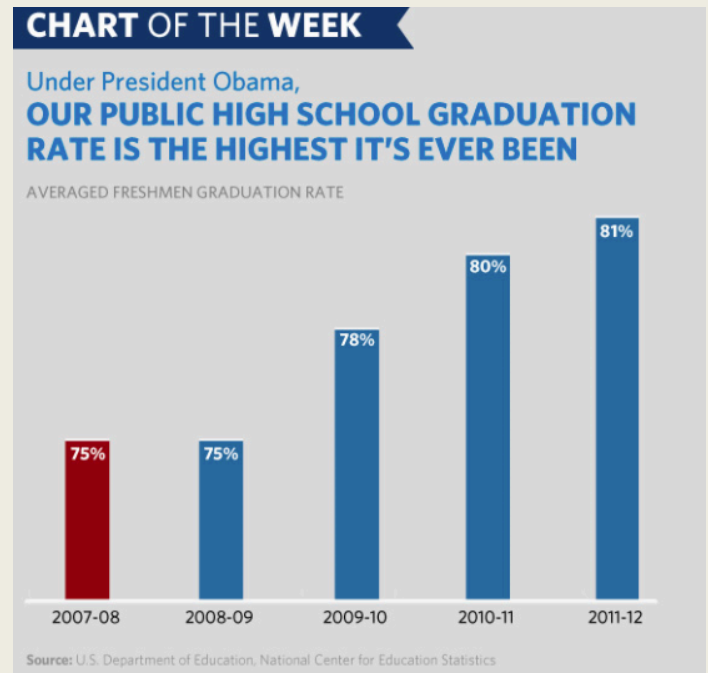
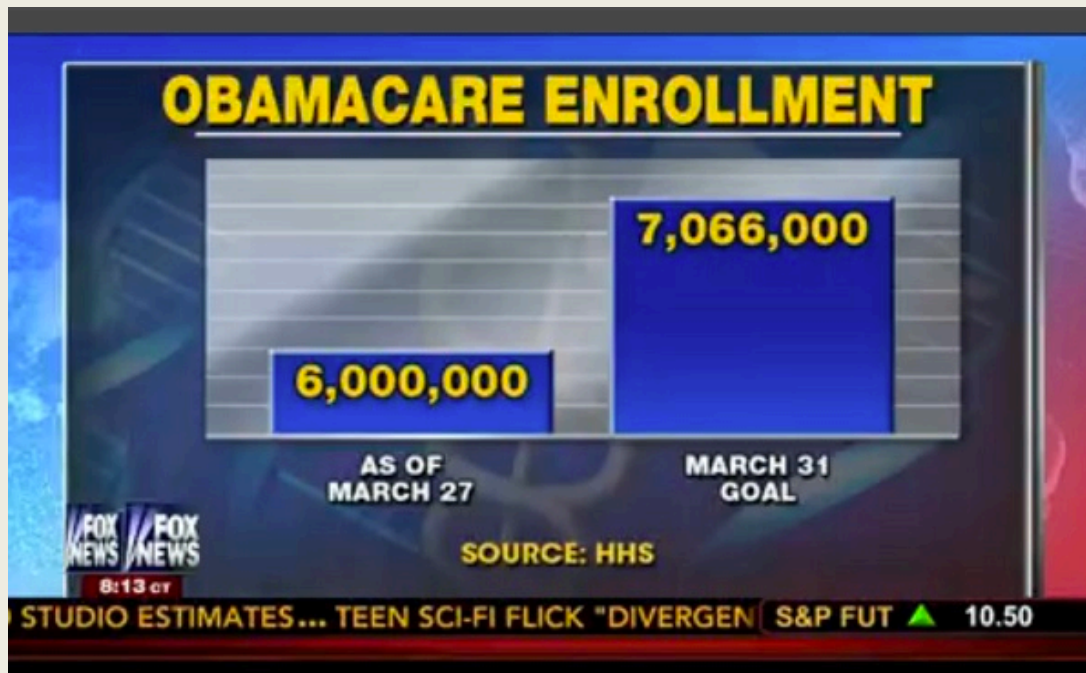
Humans have long pondered the nature of their mind/brain and, particularly why its capacities for reasoning, communication and abstract thought are far superior to other species, including closely related anthropoids. This article considers superior pattern



[twitter.com/FacesPics](https://twitter.com/FacesPics)

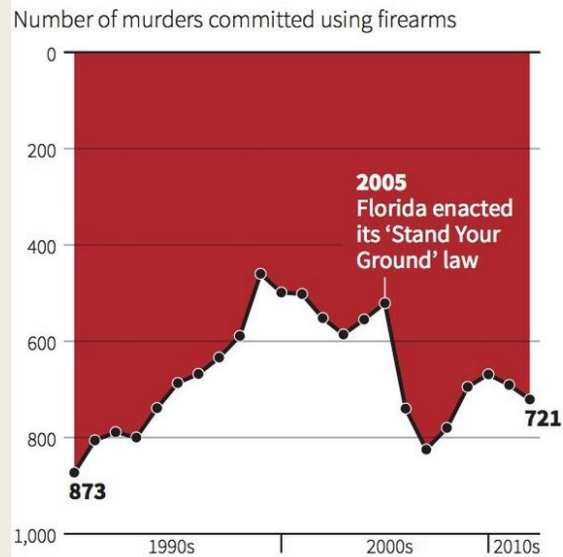


# Lies and deception



# Lies and deception

## Gun deaths in Florida



Source: Florida Department of Law Enforcement

C. Chan 16/02/2014

REUTERS

## Summer Olympic Medal Count\* (Up to August 2004)

Country	Medals
1. U.S.A.	1,975
2. Russia	999
3. Britain	615
4. France	523
5. Germany	499

\*This medal count was based on the records of Agence France-Press news service and may vary from other accounts. Initially, the International Olympic Committee frowned upon national medal counts and early reports are incomplete. In fact, from 1896 to 1906, athletes registered as individuals and it was not uncommon for them to play on the teams of other countries.

# Storytelling and confirmation

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**Rural**



**Urban**

**How do we avoid these errors?**

**Grading Rubric  
Final Policy Memo**

Category	Excellent	Good
Problem description= points	A significant problem for children, youth, and families is identified. The problem description includes sufficient research and facts to make the case. The description is comprehensive, yet concise. (20-17)	The paper includes a description of the problem, with supporting research and facts, but the discussion is not concise or some aspect is unclear. (16-17)
Recommendations	The recommendations describes two or more options for the maker, and recommends one.	The paper includes options for the maker, but does not recommend one.

Category	Masterful	Skilled	Competent
Thesis	Engaging and full development of a clear thesis as appropriate to assignment purpose.	Competent and well-developed thesis; thesis represents sound and adequate understanding of the assigned topic.	Mostly in thesis is too broad and indirect.
Organization	Consistent evidence with originality and depth of ideas; ideas work together as a unified whole; main points are sufficiently supported (with evidence); support is valid and specific.	Ideas supported sufficiently; support is sound, valid, and logical.	Main points are only supported sufficiently; support is loosely connected to main points.
Paragraphs	Organization is sequential and appropriate to assignment; paragraphs are well developed and appropriately divided; ideas linked with smooth transitions.	Competent organization, without sophistication. Competent paragraph structure; lacking in effective transitions.	Limited organization; thesis; paragraphs with weak or non-existent transitions.

TOPIC	MEETS EXPECTATIONS			
	4 - Exceptional	3 - Admirable	2 - Acceptable	1 - Poor
<b>Nonverbal Skills</b>				
Eye Contact	Holds attention of entire audience with the use of direct eye contact, seldom looking at notes or slides.	Consistent use of direct eye contact with audience, but still returns to notes.	Displayed minimal eye contact with audience, while reading mostly from notes.	No eye contact with audience as entire report is read from notes.
Body Language	Movements seem fluid and help the audience visualize. Displays relaxed, self-confident nature about self, with no-mistakes.	Made movements or gestures that enhance articulation. Makes minor mistakes, but quickly recovers from them; displays little or no tension.	Very little movement or descriptive gestures. Displays mild tension; has trouble recovering from mistakes.	No movement or descriptive gestures. Tension and nervousness obvious; has trouble recovering from mistakes.
<b>Verbal Skills</b>				
Enthusiasm	Demonstrates a strong, positive feeling about topic during entire presentation.	Occasionally shows positive feelings about topic.	Shows some negativity toward topic presented.	Shows absolutely no interest in topic presented.
Speaking Skills	Uses a clear voice and speaks at a good pace so audience members can hear presentation. Does not read off slides.	Presenter's voice is clear. The pace is a little slow or fast at times. Most audience members can hear presentation.	Presenter's voice is low. The pace is much too rapid/slow. Audience members have difficulty hearing presentation.	Presenter mumbles, talks too fast, and speaks too quietly for a majority of students to hear & understand.
<b>Timing</b>				
Length of Presentation	4 - Exceptional Within two minutes of allotted time +/-.	3 - Admirable Within four minutes of allotted time +/-.	2 - Acceptable Within six minutes of allotted time +/-.	1 - Poor Too long or too short.

Paragraphs were simple, disconnected and formulaic. No structure is weak; transitions are missing, inappropriate and/or missing remaining paragraph or series of isolated paragraphs.



**Pie I have eaten**



**Pie I have not  
yet eaten**

**Let's do some stuff!**