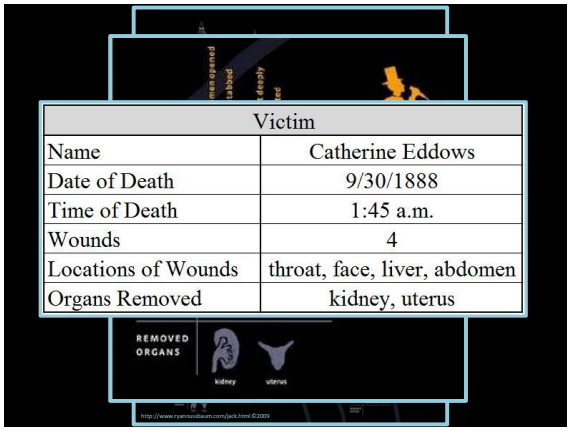
A Picture Is Worth A Thousand Numbers

Data Visualization for Schools

http://www.flickr.com/photos/fwc/2222409318/

Tara Richerson for ASCD
March 28, 2011

http://www.flickr.com/photos/azaraskin/3342003343/



Victim	
Name	Catherine Eddows
Date of Death	9/30/1888
Time of Death	1:45 a.m.
Wounds	4
Locations of Wounds	throat, face, liver, abdomen
Organs Removed	kidney, uterus

http://www.ryanrusbaum.com/jack.html ©2009

		LS1: Cell Energetics						
		Section Review 9.7	Cell Energetics Lab	Homework	Graphic Organizer	Cell Energetics Project	Review	Cell Energetics Exam
Anderson	Michael	3	**2**	2	2	**3**	2	**3**
Chan	Grant	3	**2**	3	3	**1**	2	**3**
Click	Robert	1	**2**	2	3	**3**	4	**4**
Intiman	Laura	3	**3**	3	3	**1**	2	**3**
Judge	Brandon	3	**1**	1	2	**3**	4	**3**
Moore	Marcy	3	**1**	2	3	**2**	2	**2**
Stockton	Nancy	1	**1**	2	3	**2**	1	**2**
Trujillo	Juan	3	**1**	1	2	**3**	1	**3**
Vargas	Anna	1	**1**	1	2	**3**	2	**3**
Zimmerman	Amber	3	**1**	3	3	**1**	2	**3**

The most **powerful** single modification that enhances achievement is **feedback**.

---John Hattie, 1992

The Effect of Teacher Feedback Behaviors on Student Achievement

Type of Feedback	% Effect
Apply a Rule	32
Displaying results graphically	26
Explain Correct Answer	20
Repeat Until Correct	20
Grading Criteria Understood by Students	16
Provide Correct Answer	8.5
Marking answers wrong	-3

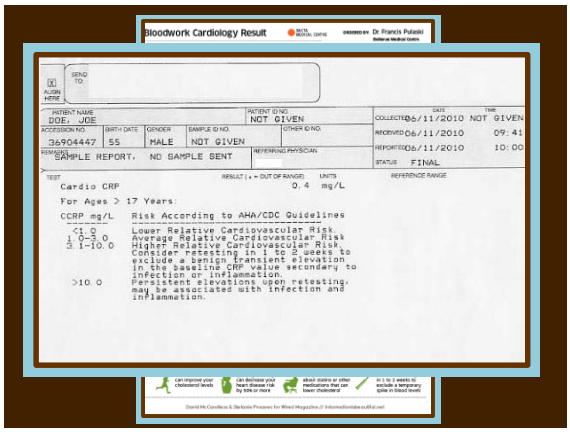
Marzano, 2006

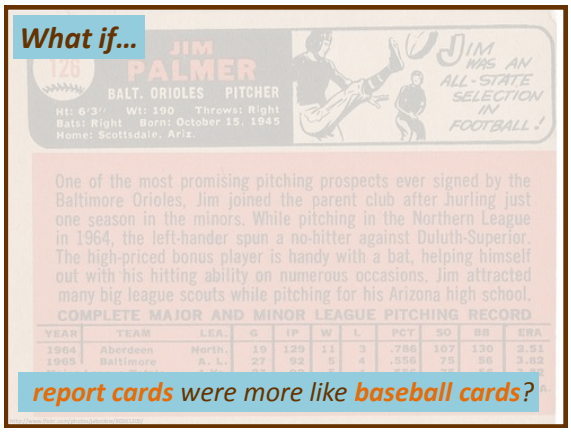
What are the Elements of a Good Visualization?

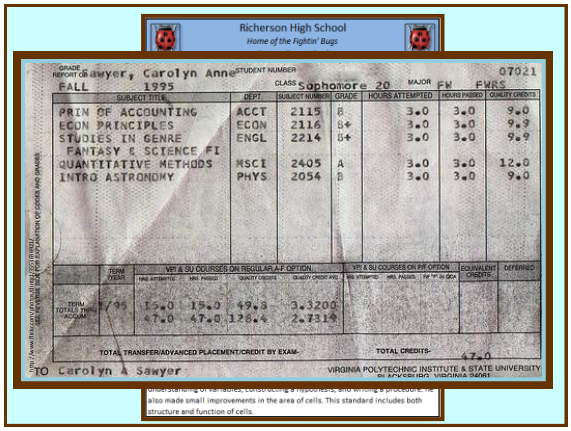
1 **St** Story

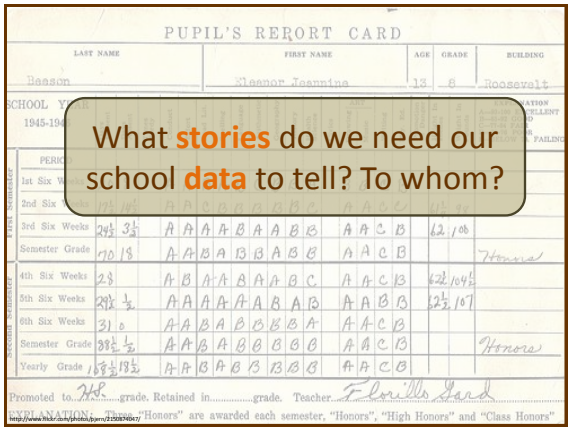
2 **In** Interactive

3 **Gl** Glanceability





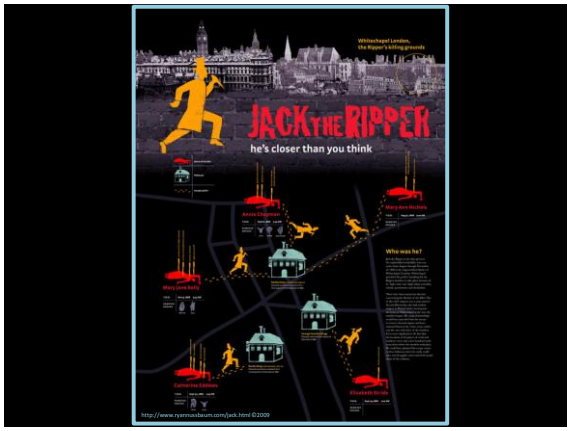




What are the Elements of a Good Visualization?

1 **St** Story

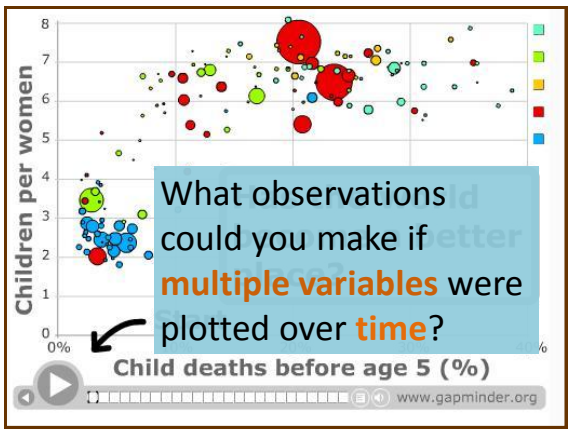
2 **In** Interactive



Can one snapshot…

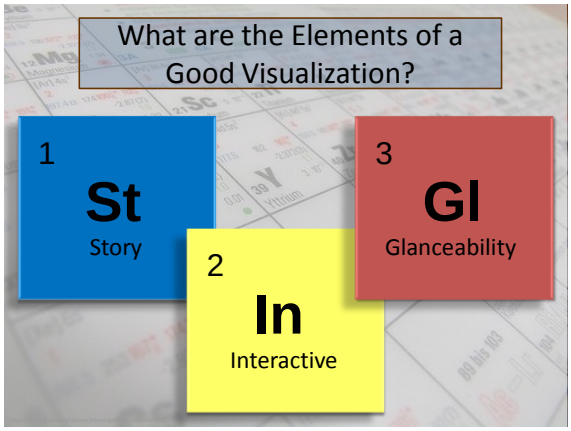
tell the whole story?

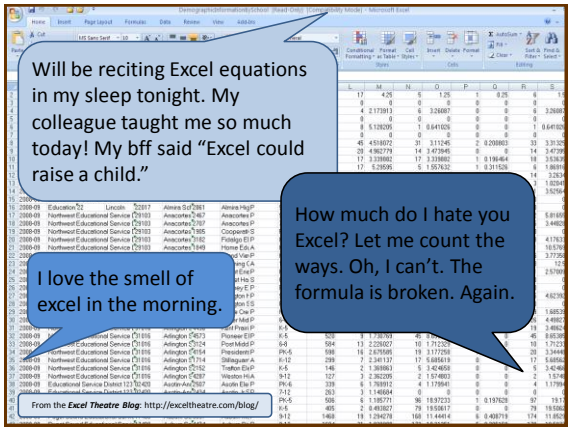
What new **observations** could you make if your data were plotted on a **map**?

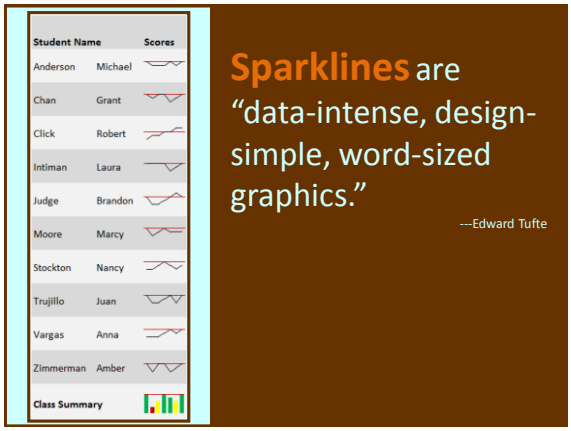


What observations could you make if **multiple variables** were plotted over **time**?

What can you do to make your data more **interactive**?



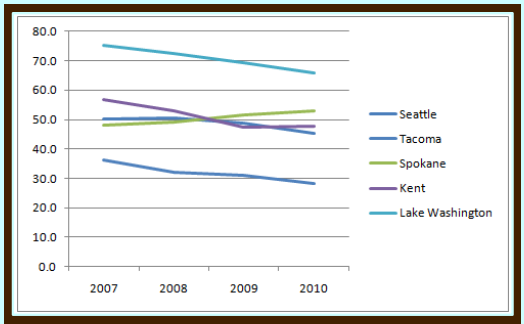




Sparklines are "data-intense, design-simple, word-sized graphics."

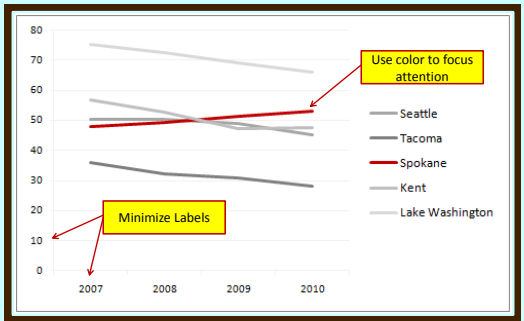
---Edward Tufte

What's wrong with this picture?

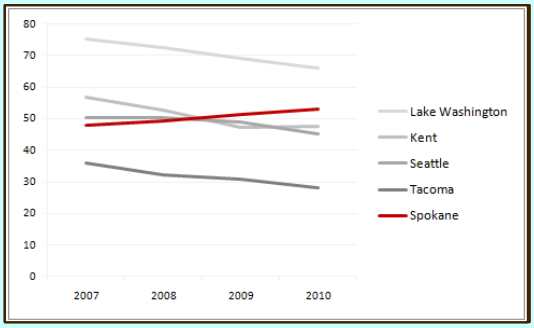


Washington 10th grade math

Extreme Makeover: Excel Edition



Washington 10th grade math



Washington 10th grade math

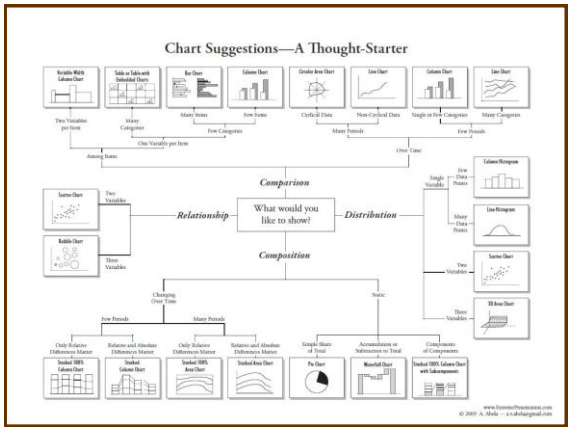
Not everything that **counts** can be **counted**…

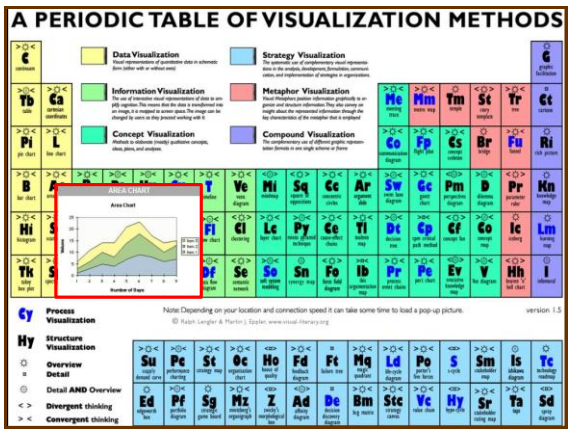
*…and not everything that can be **counted counts**.*

---Albert Einstein

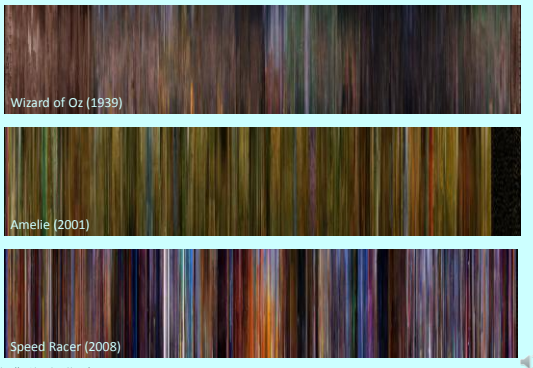
What happens?

absences academics assessment attendance bathroom chairs discipline discussions engaging fun grading guidance hitting humor illness instruction interactions interruptions learning lunch math mediation organization parents patrols phone planning pullouts reading recess science sharing specialists speech tardies tattling teaching technology testing time-loss writing

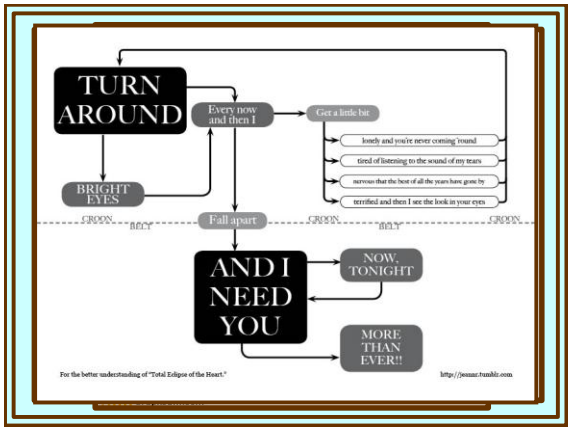




Infoporn: When does information become a *junk chart*?



from http://moviebarcode.tumblr.com/


TURN AROUND
Every now and then I
Get a little bit
lonely and you're never coming 'round
tired of listening to the sound of my tears
nervous that the best of all the years have gone by
terrified and then I see the look in your eyes
BRIGHT EYES
GROWN
MORE
Fall apart
GROWN
MORE
GROWN
AND I NEED YOU
NOW, TONIGHT
MORE THAN EVER!!
For the better understanding of "Total Eclipse of the Heart."
http://jessaar.tumblr.com

What are your next steps in creating and sharing data visualizations?
DATA

Tara
Richerson
1560 NE Tagholm Rd
Poulsbo WA 98370
360.710.1960
Tara.Richerson@gmail.com
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