

How to Present Your Data

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Outline

CONTENT

- Goals
- Framework
- Common Pitfalls

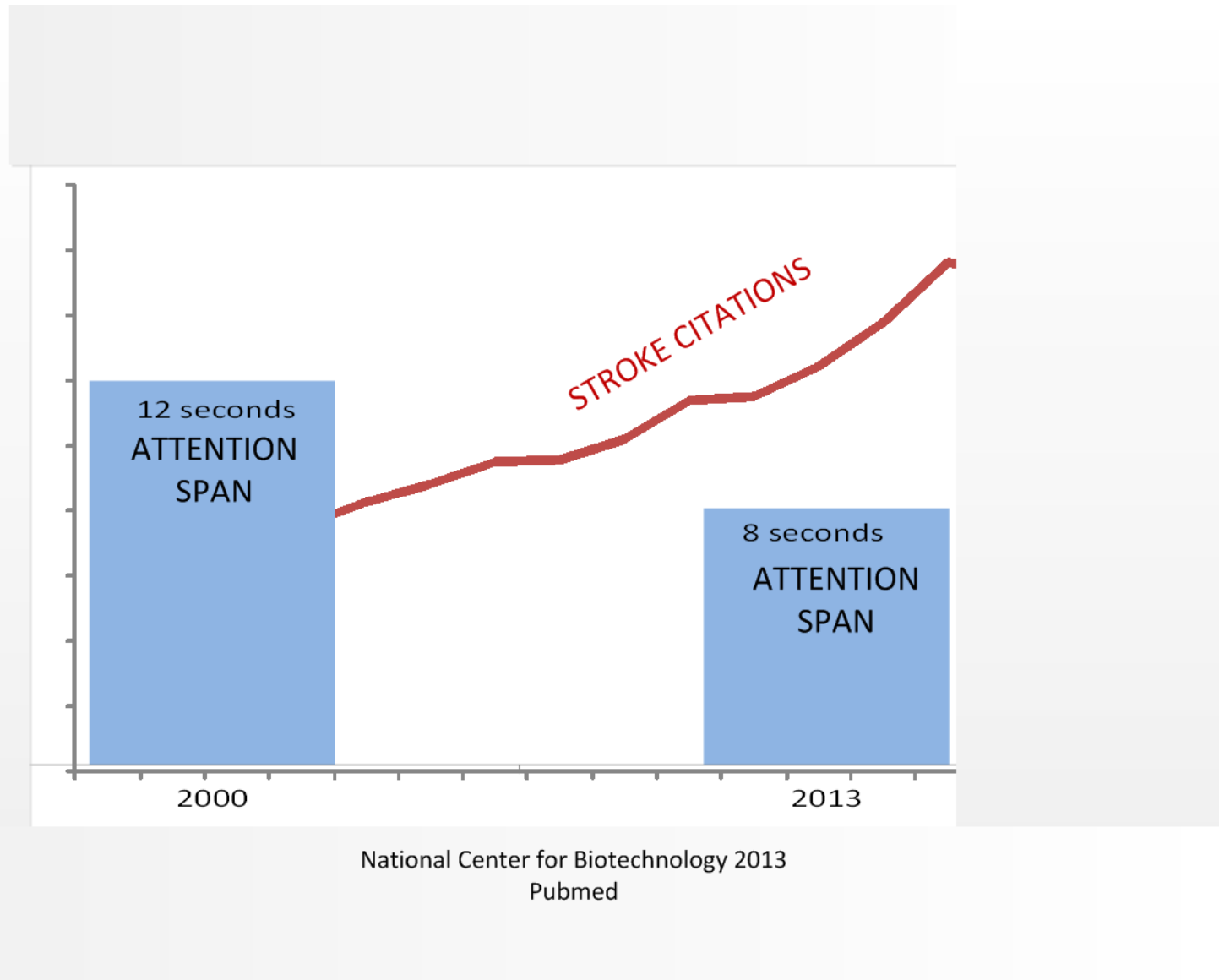
FORMAT

- Font & Typeface
- Color
- Tables
- Optimize Graphics
- Tips for Oral Presentation
- Tips for Poster

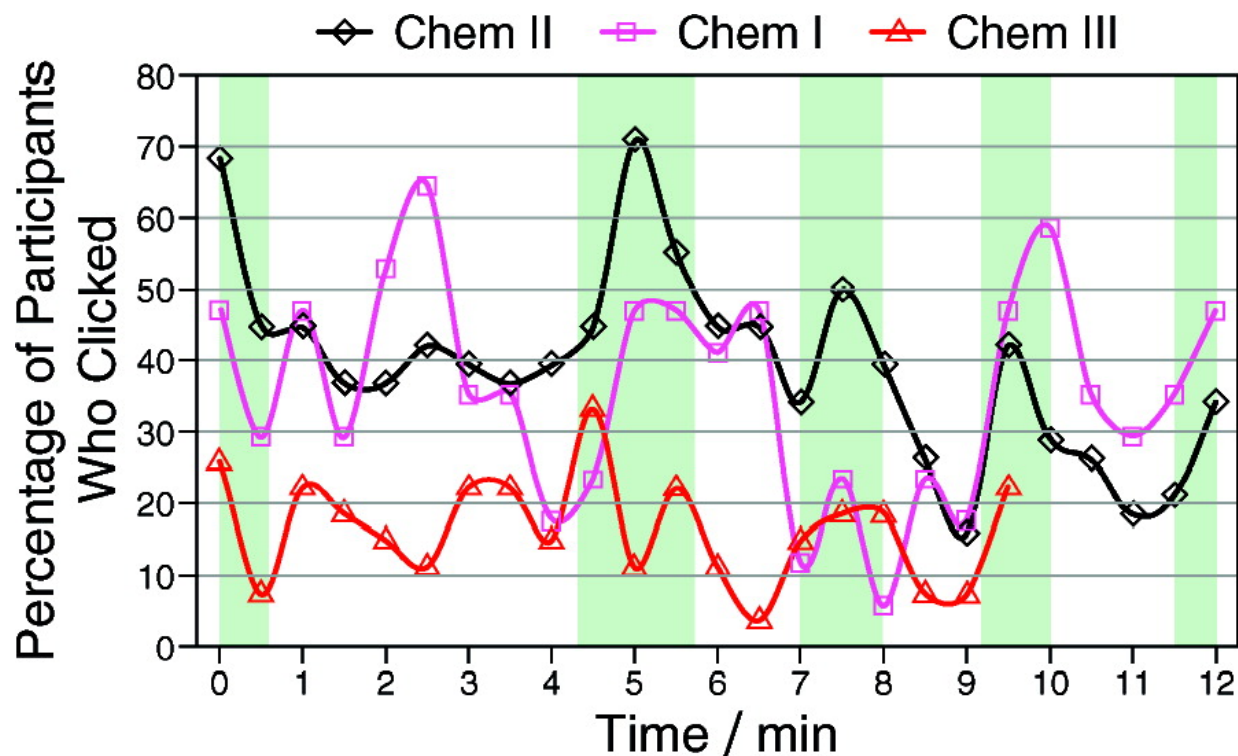
Features of Good Presentation

- Engages the audience
- Simple delivery: “less is more”
- Has a central message
- Logical Flow
- Capitalize on images

The Challenge



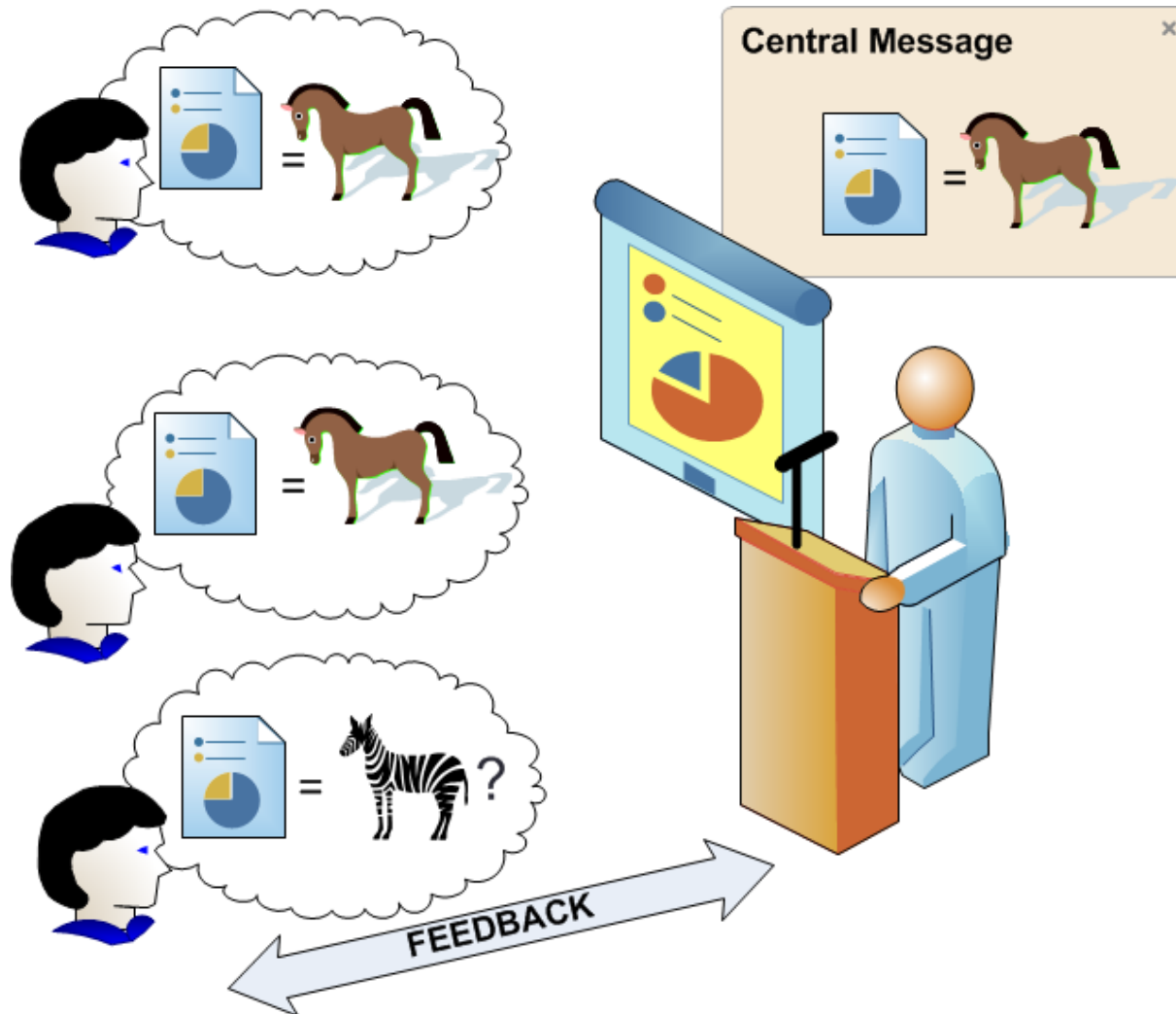
Keep Earning your Audience's Attention



Presentation \neq Dumping Data



Presentation = Communication



Test for Central Message



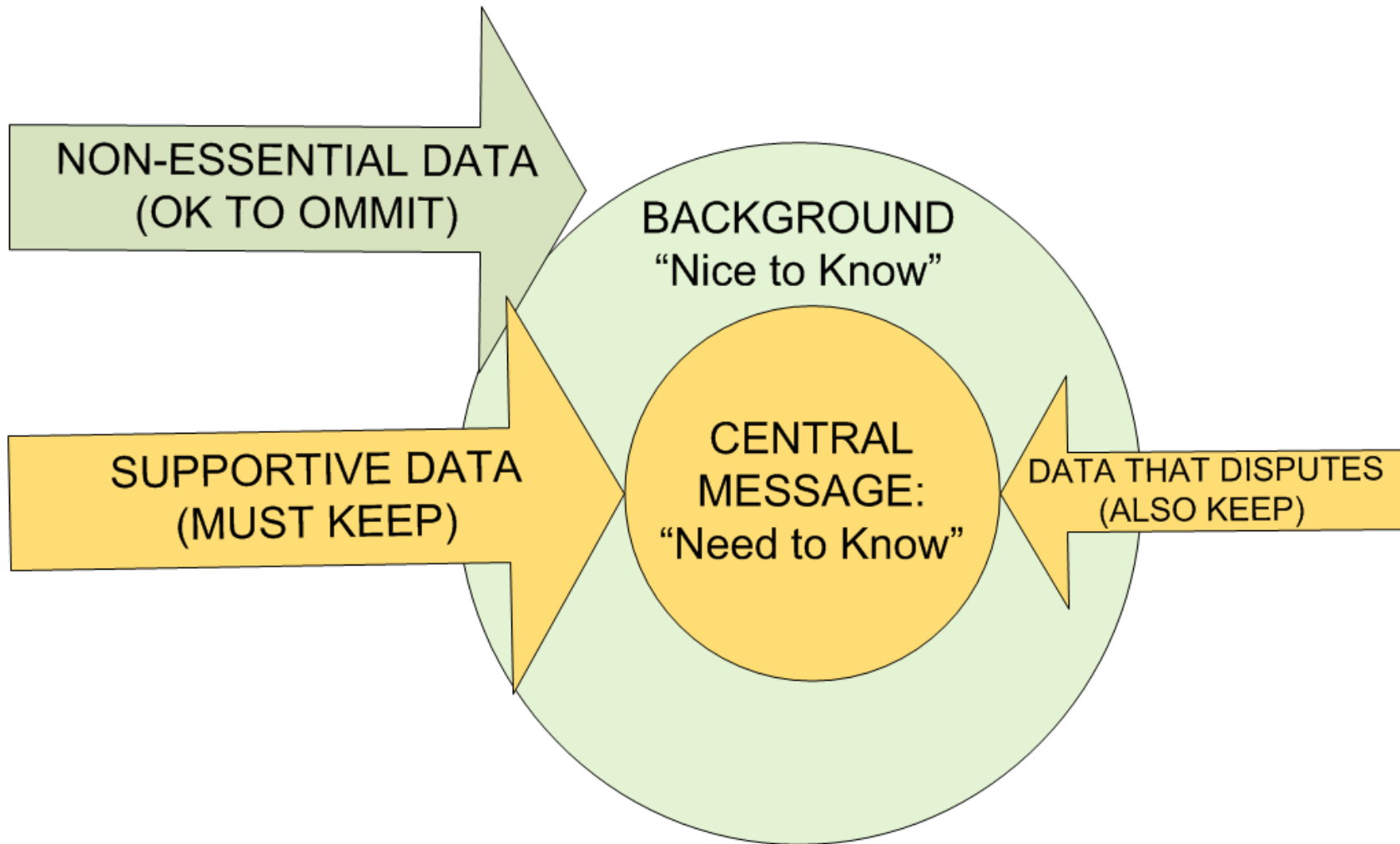
25 WORD TEST



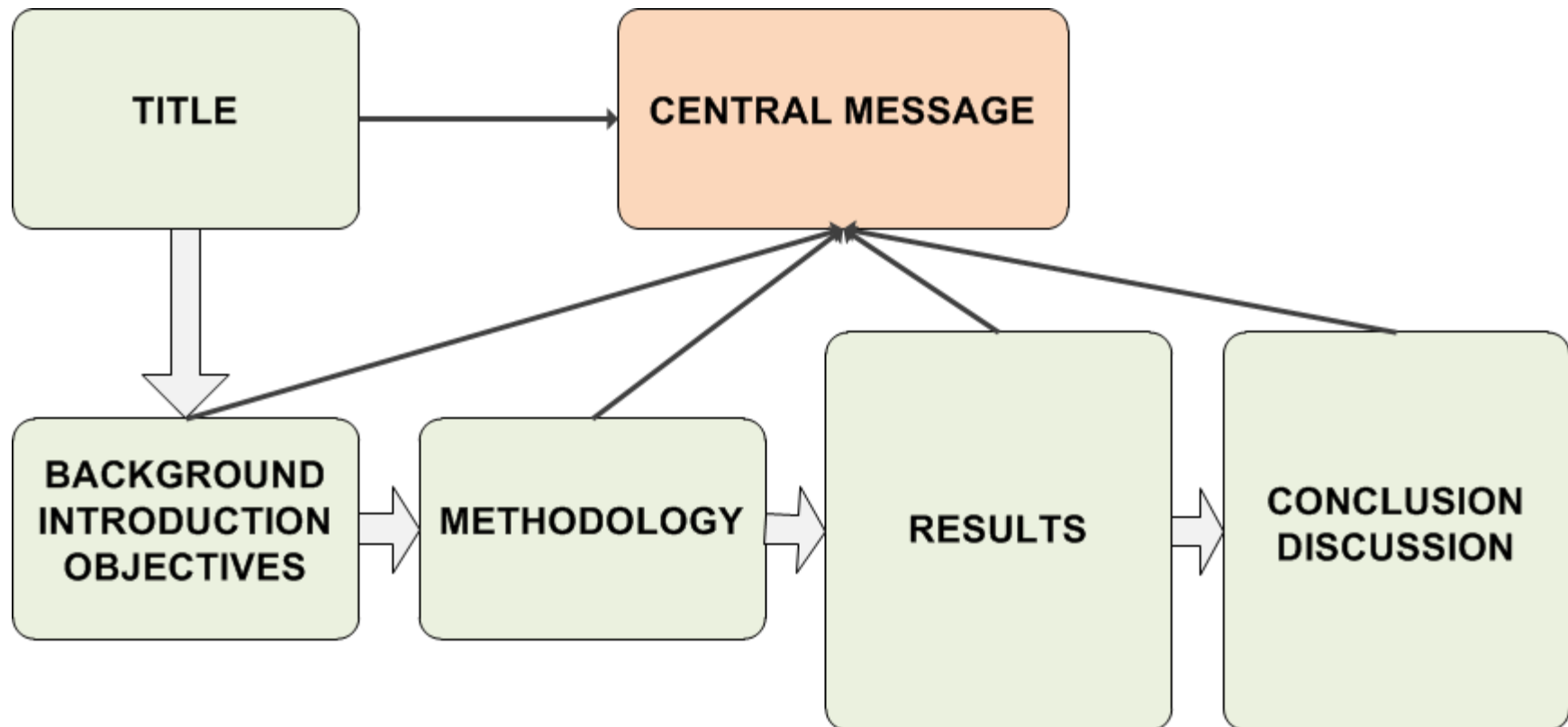
CENTRAL
MESSAGE?



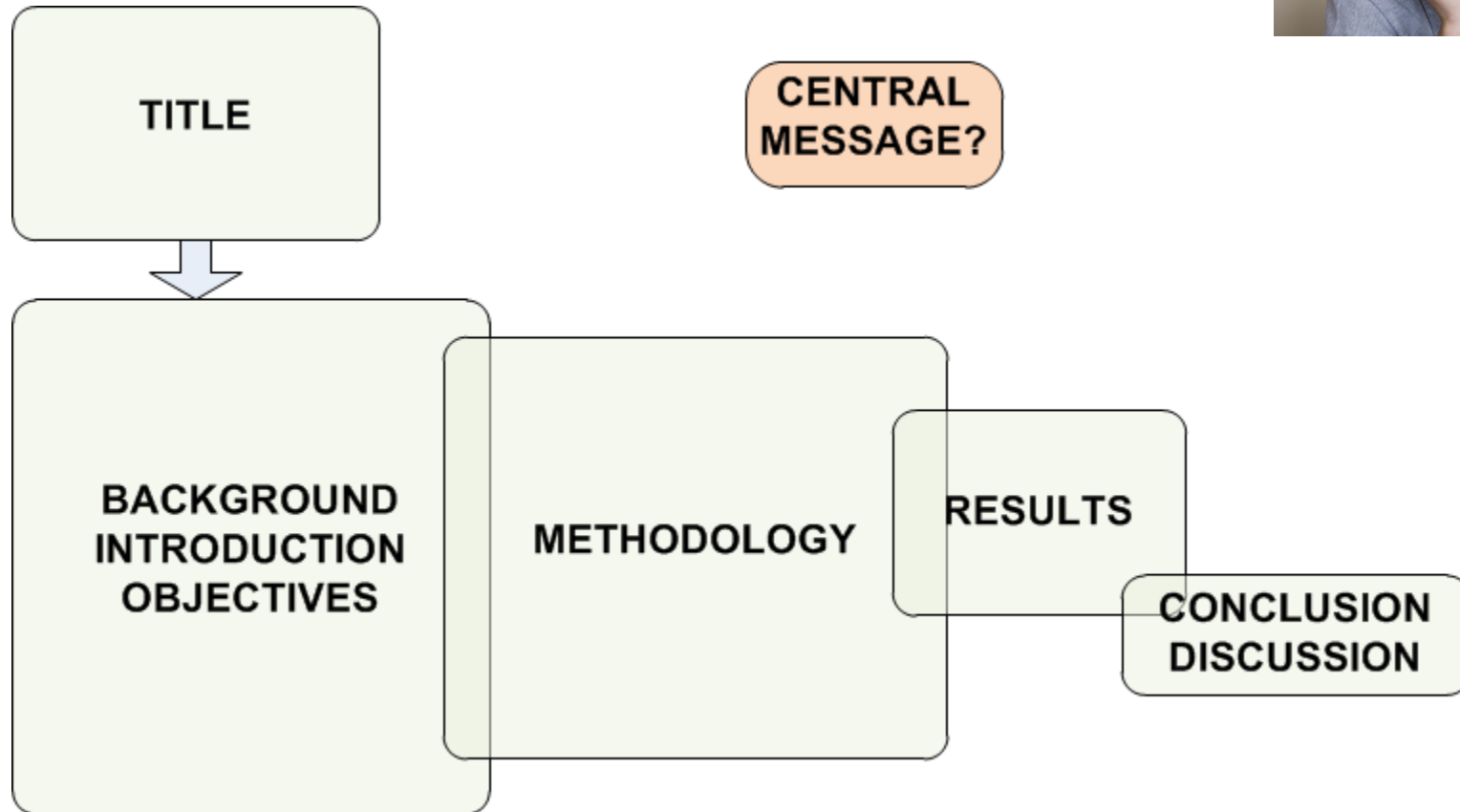
Enhance Central Message



Ideal Framework



Poor Presentation



Title: Spend time on it

- Influences reviewers & graders
- Selects audience
- Predisposes audience
- Disseminated by search engines
- Some people only read title!

Which Title Do You Prefer?

A Impact of a stroke trial network on recruiting rates: a before and after study

B Is a stroke trial network associated with improved recruitment rates?

C A stroke trial network improves recruitment rates

Title Types

A Impact of a stroke trial network on recruiting rates: a before and after study

DESCRIPTIVE

B Is a stroke trial network associated with improved recruitment rates?

QUESTION TYPE

C A stroke trial network improves recruitment rates

DECLARATIVE

Choosing Right Title

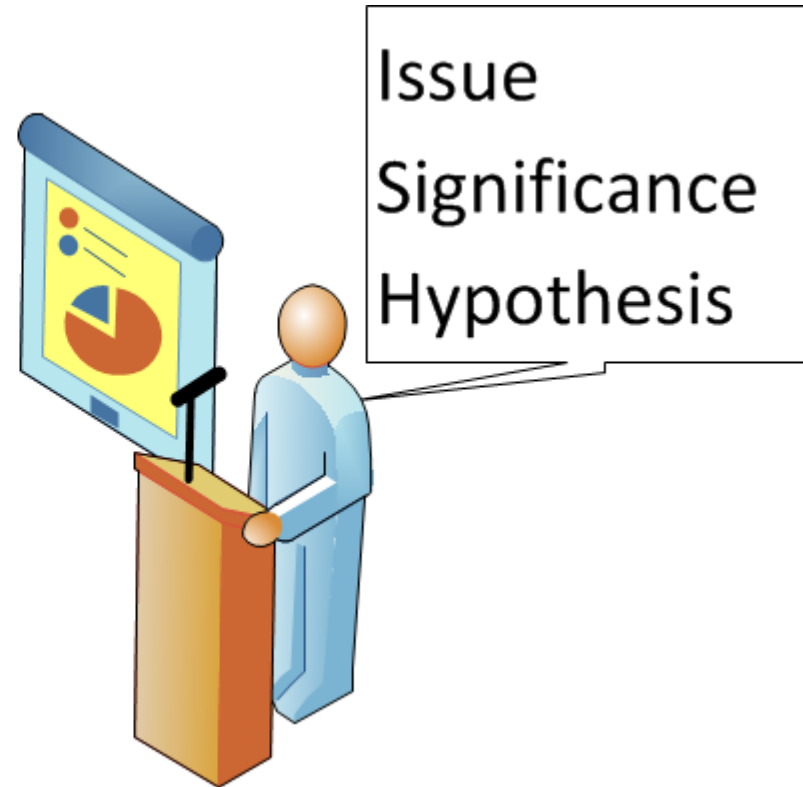
- Short and Catchy
- Descriptive type = boring (unless novel methods or RCT)
- Question type = too much suspense!
- Declarative type= best (get to the point)



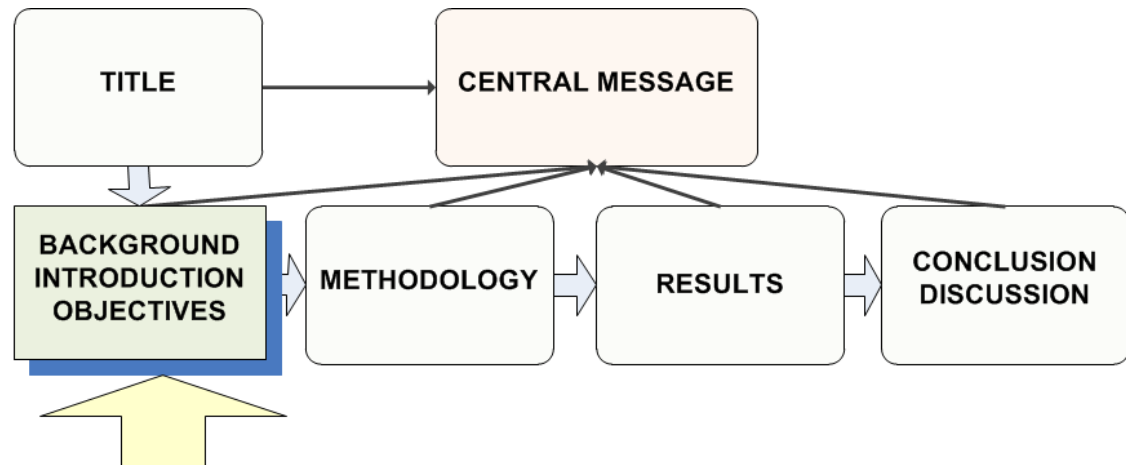
Title Types & Impact

Title Type	Median Downloads	Median Citations
Descriptive	2,754	14.2
Declarative	2,565	12
Question	3,723	6

Background Section



Background: Pitfalls

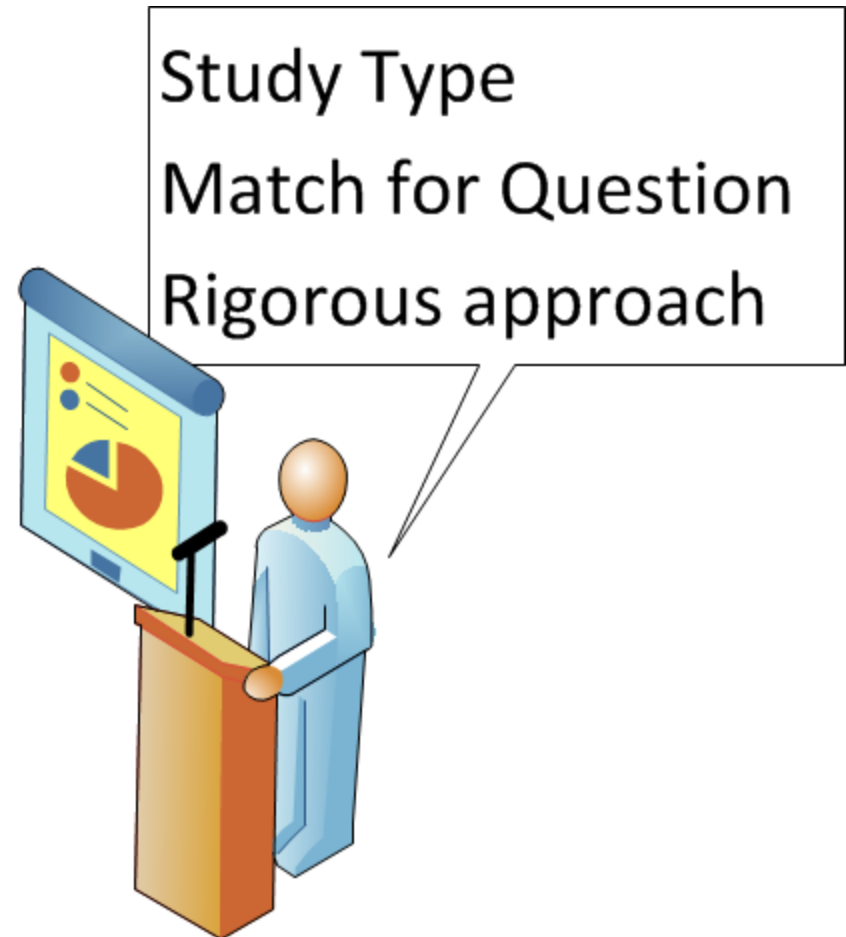


- Too long
- Too much history
- Fails to convey relevance
- Stalls interest



Methodology

What type of study?
Was it adequate?
Was it done right?



Study Type
Match for Question
Rigorous approach

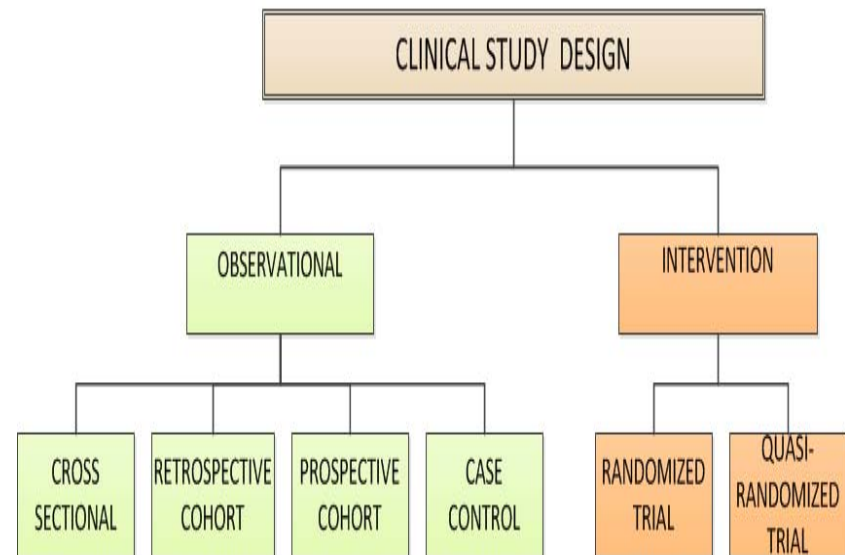
Pitfall: First Sentence

CONCEALED METHODS

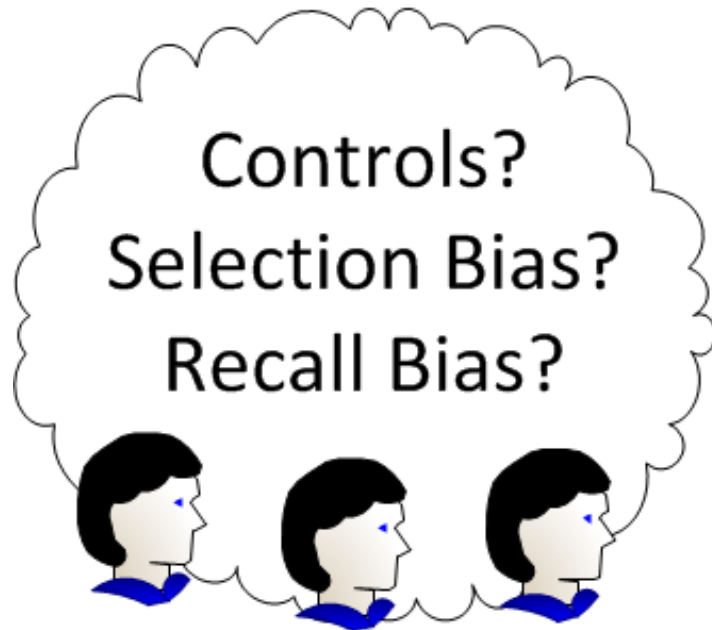
- We identified all the patients diagnosed with Moya-Moya in our prevention clinic from 1996-2013 and compared it with patients seen in that same period...

DECLARATIVE

- This was a case-control study..



Predispose Audience



Pitfall: Contamination with Results

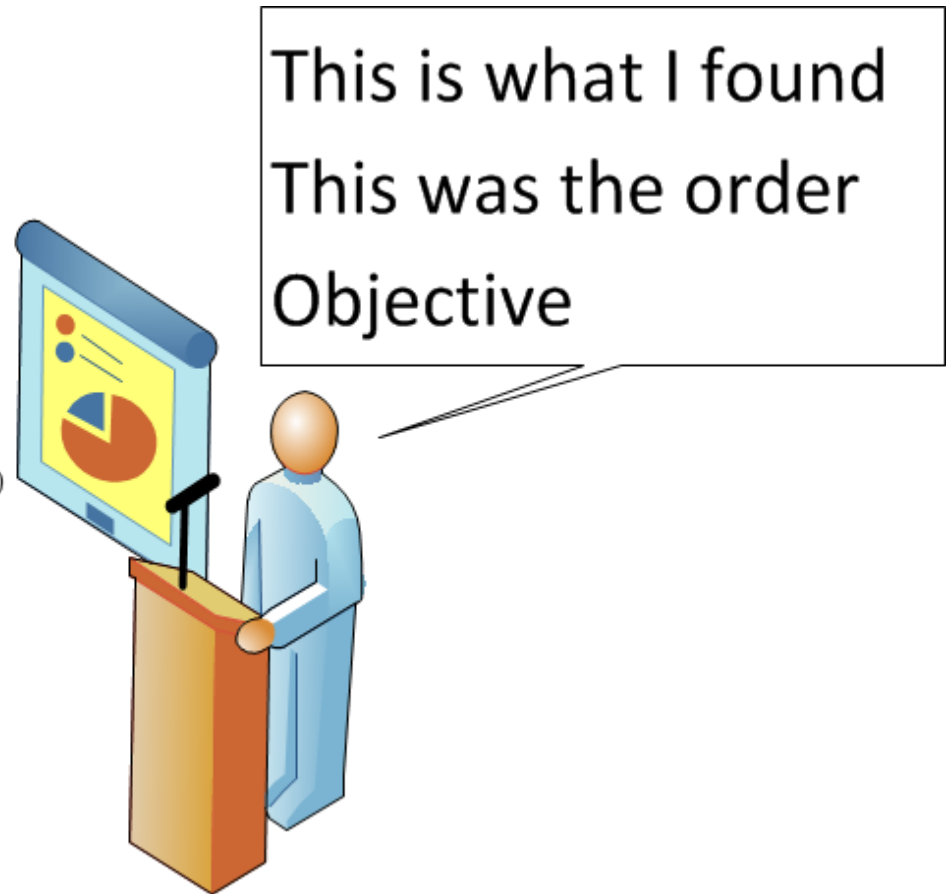
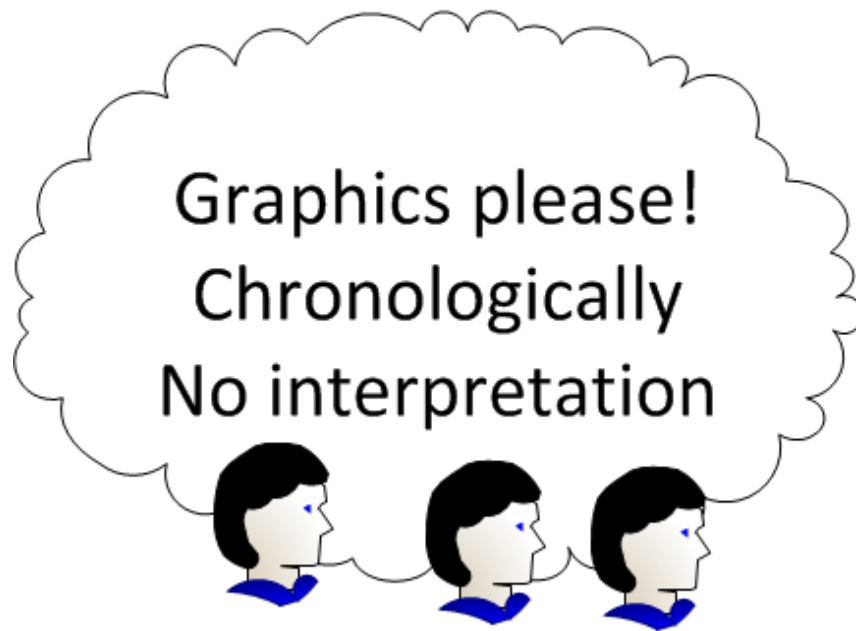
BAD

- We analyzed 1254 consecutive patients admitted to our stroke service...

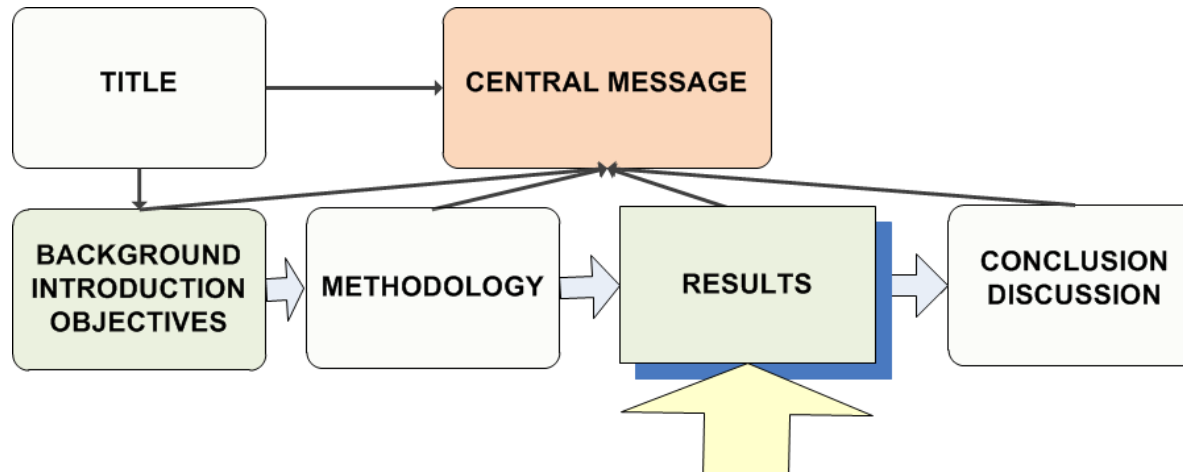
BETTER

- We analyzed consecutive patients admitted to our stroke service...
- Results: 1254 patients were analyzed

Results

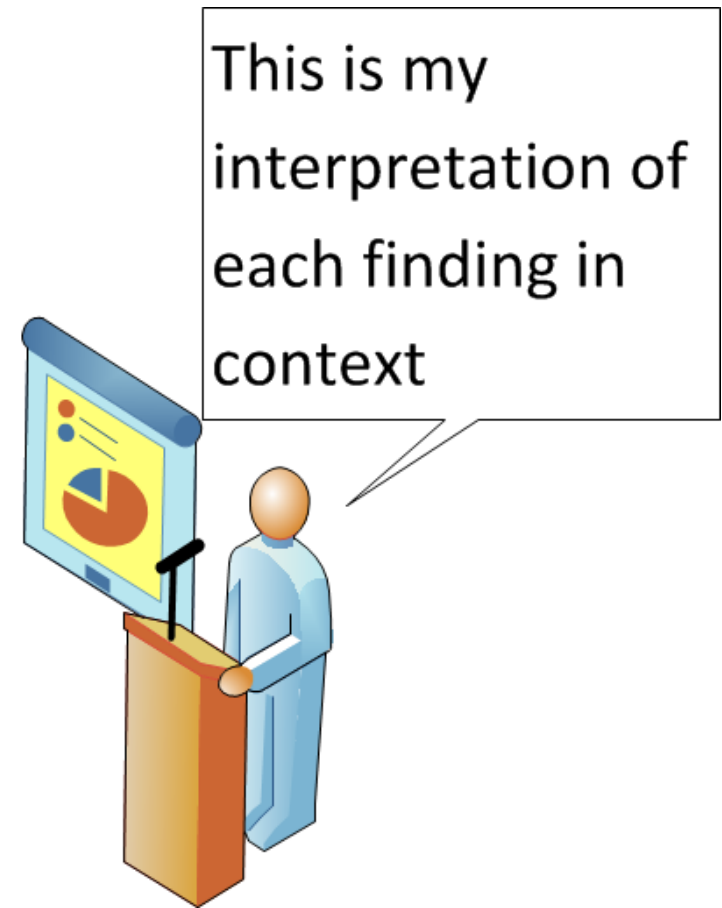
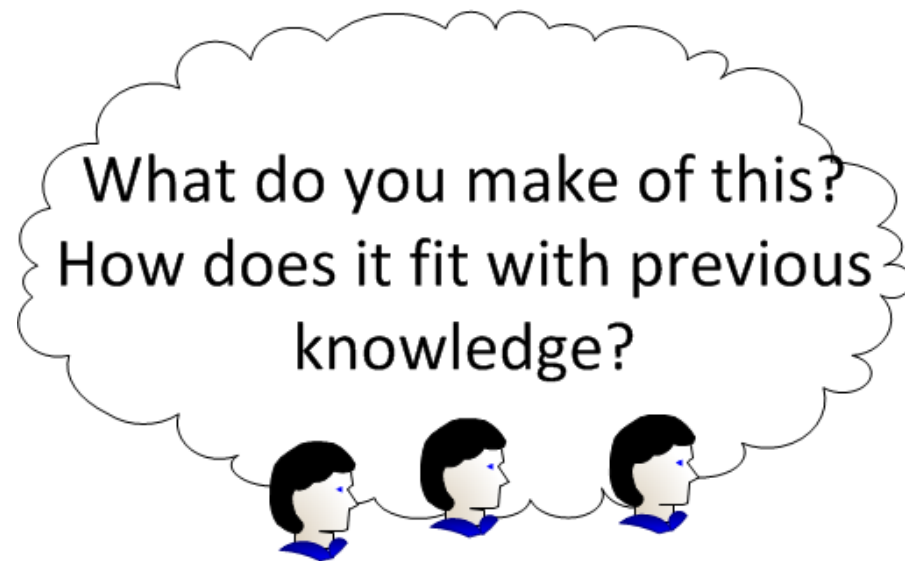


Results: Pitfalls

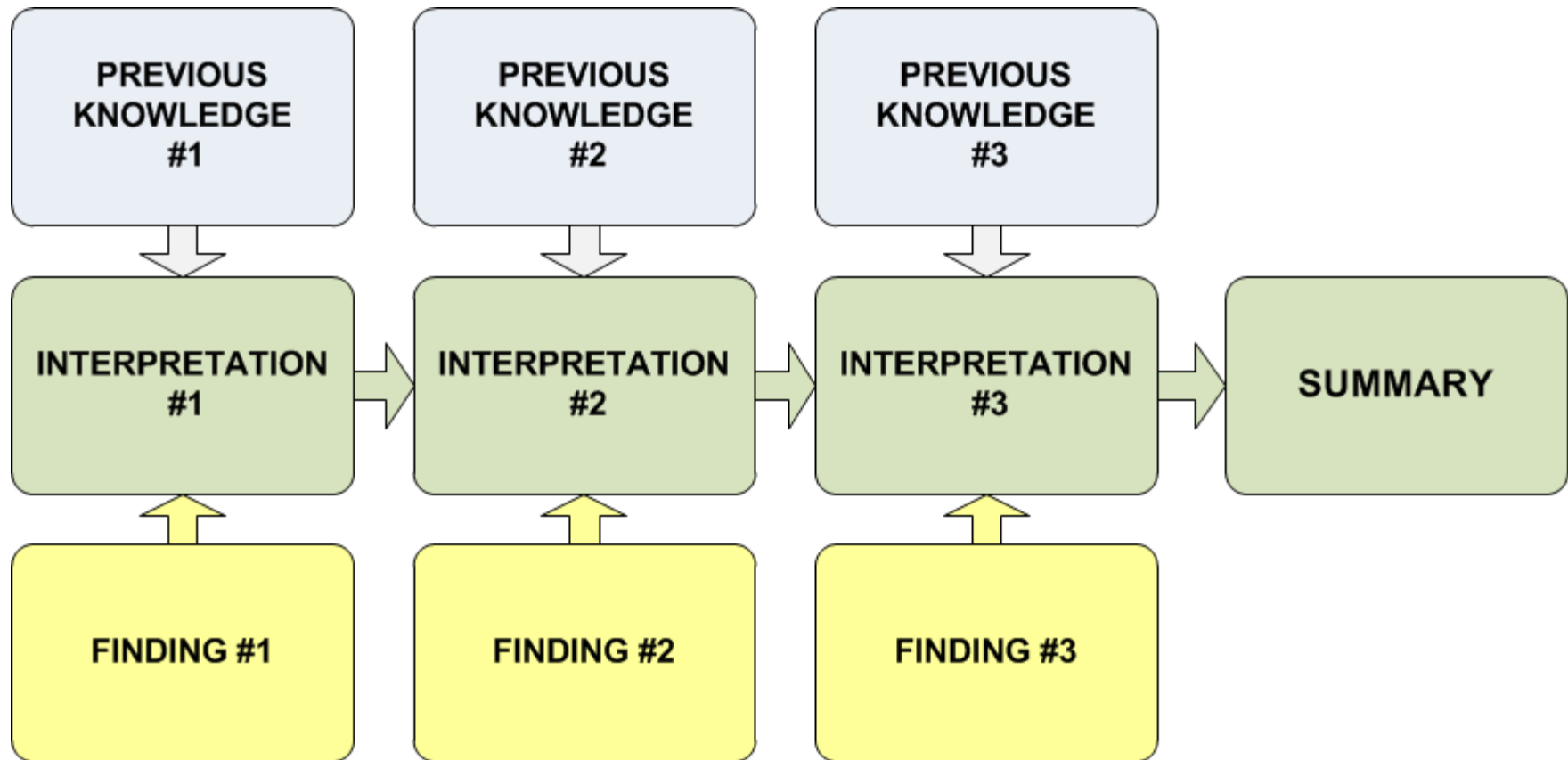


- Interpretation (“significant”)
- Ineffective Graphics
- “I know this is a busy slide..”
- Redundancy text-graphic

Conclusion



Conclusion: Flow



Conclusion: Pitfalls

- Too little interpretation
- Does not interpret the results in context
- Introducing new results
- Disorganized flow
- Ending with “more research is needed...”

Which is Easier to Read?

TEXT 1

THE STROKE TRIALS NETWORK (NIH STROKENET) IS DESIGNED TO MAXIMIZE EFFICIENCIES TO PRIORITIZE, HARMONIZE AND STREAMLINE THE DEVELOPMENT OF HIGH-QUALITY, MULTI-SITE CLINICAL TRIALS FOCUSED ON KEY INTERVENTIONS IN STROKE PREVENTION, TREATMENT, AND RECOVERY. EARLY PHASE 1-2 EXPLORATORY AND CONFIRMATORY PHASE 3 TRIALS AS WELL AS BIOMARKER-VALIDATION STUDIES THAT ARE IMMEDIATELY PREPARATORY TO TRIALS WILL BE COORDINATED THROUGH REGIONAL COORDINATING STROKE CENTERS, THE NATIONAL CLINICAL COORDINATING CENTER, AND THE NATIONAL DATA MANAGEMENT CENTER.

TEXT 2

The Stroke Trials Network (NIH StrokeNet) is designed to maximize efficiencies to prioritize, harmonize and streamline the development of high-quality, multi-site clinical trials focused on key interventions in stroke prevention, treatment, and recovery. Early phase 1-2 exploratory and confirmatory phase 3 clinical trials as well as biomarker-validation studies that are immediately preparatory to trials will be coordinated through Regional Coordinating Stroke Centers, the National Clinical Coordinating Center, and the National Data Management Center

TEXT 3

The Stroke Trials Network (NIH StrokeNet) is designed to maximize efficiencies to prioritize, harmonize and streamline the development of high-quality, multi-site clinical trials focused on key interventions in stroke prevention, treatment, and recovery. Early phase 1-2 exploratory and confirmatory phase 3 clinical trials as well as biomarker-validation studies that are immediately preparatory to trials will be coordinated through Regional Coordinating Stroke Centers, the National Clinical Coordinating Center, and the National Data Management Center

Fonts & Typeface

- ALL CAPITALS DECREASE SPEED BY 14%
- *Italics difficult to read*
- Use ≥ 22 point font for text
- Uppercase with bullets

Typeface Choices

SERIF

FASTER TO READ:
BEST TEXT

- Times New Roman
- Georgia
- Cambria
- Constantia

SANS-SERIF

SLOWER TO READ:
BEST HEADLINES

- Arial
- Calibri
- Tahoma
- Verdana
- Century Gothic

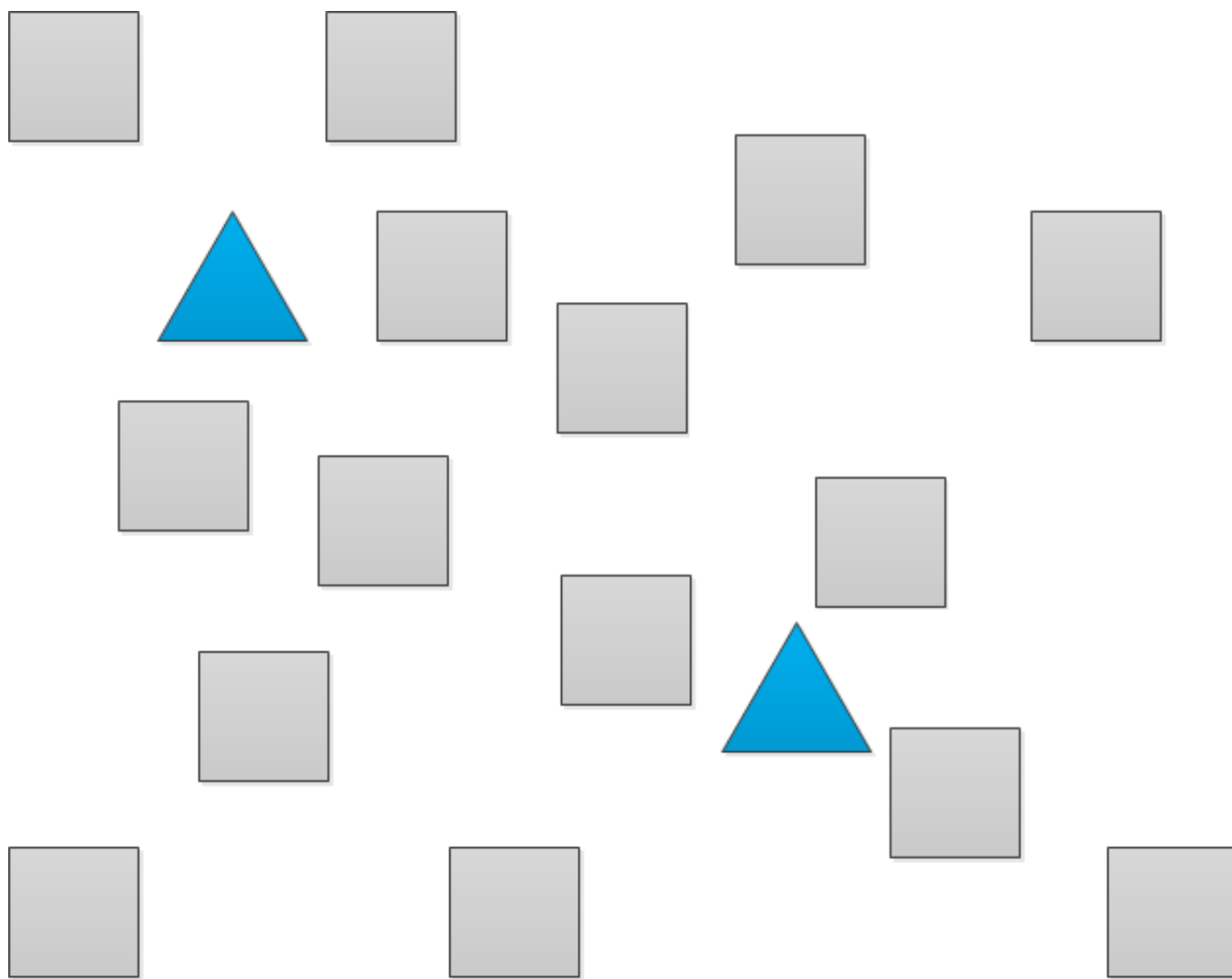
Background/Design

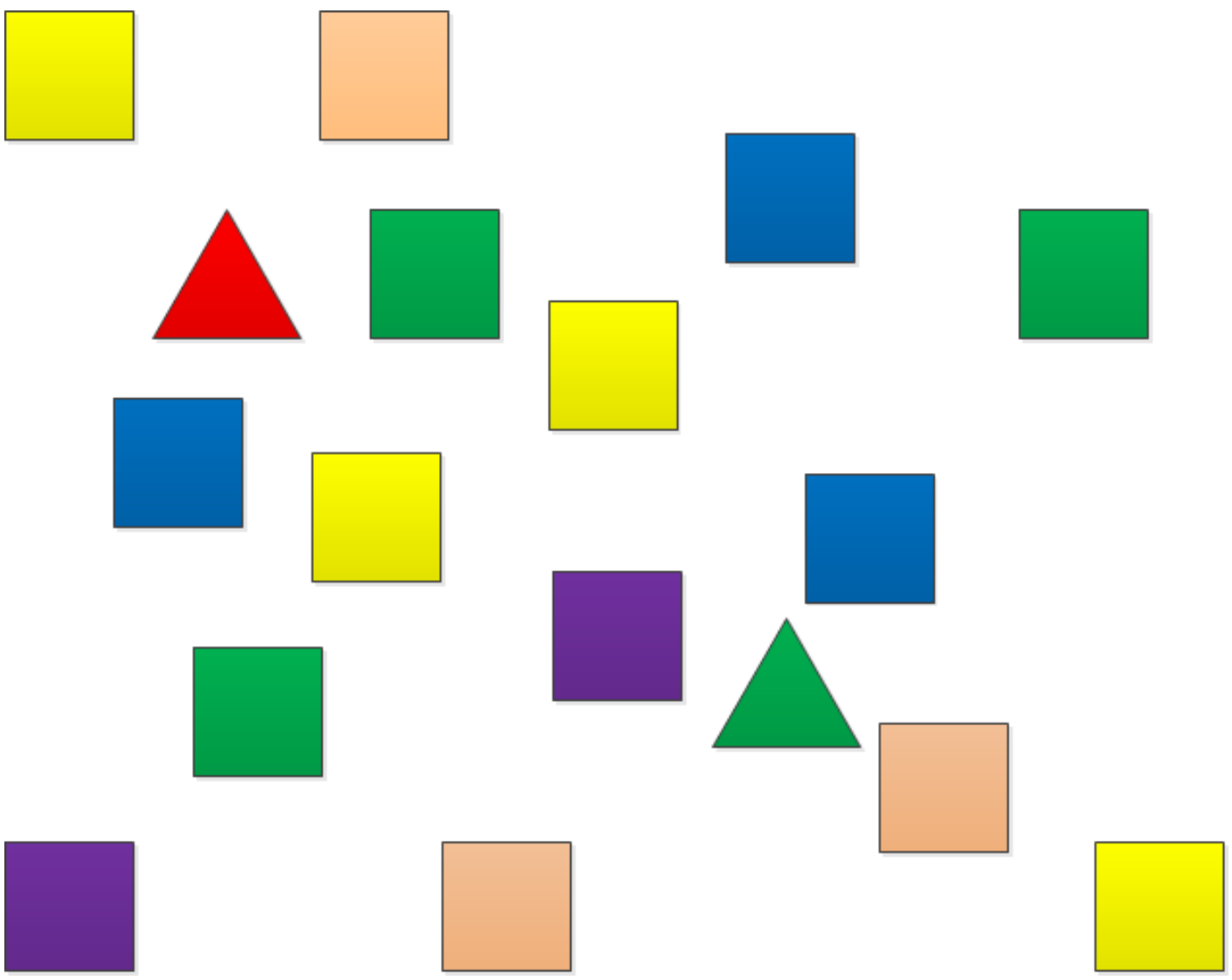
- Brightness crucial in the search speed
- High contrast text-to-background
- Dark text, light background better
- Yellow text, blue background optional
- Avoid red/green (8% of men deficiency)

Use of Color

- Color has to code a message
- Color is superior to brightness, shape, underlining and other forms of coding
- Use to help **visualize** different variables
- Too many colors slows visual search





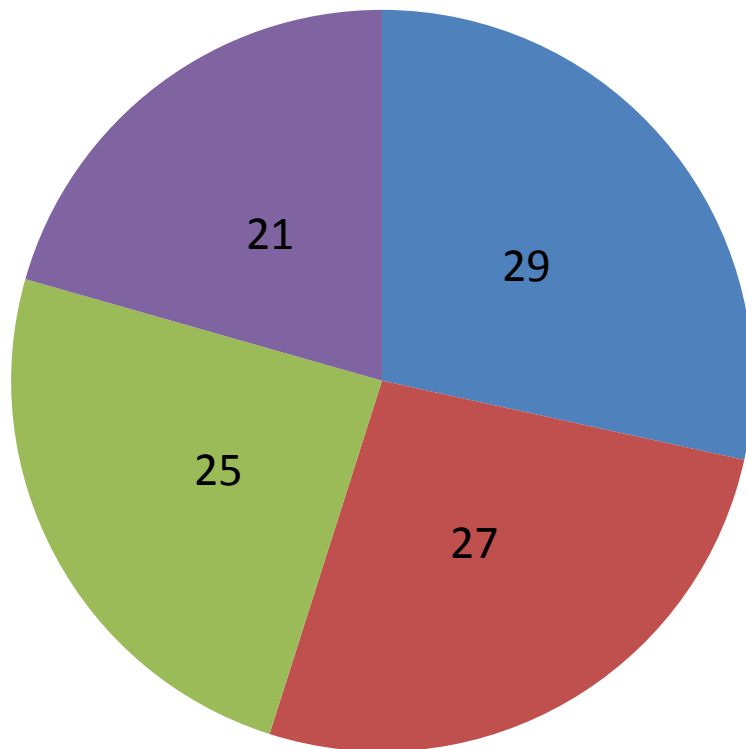


Tables

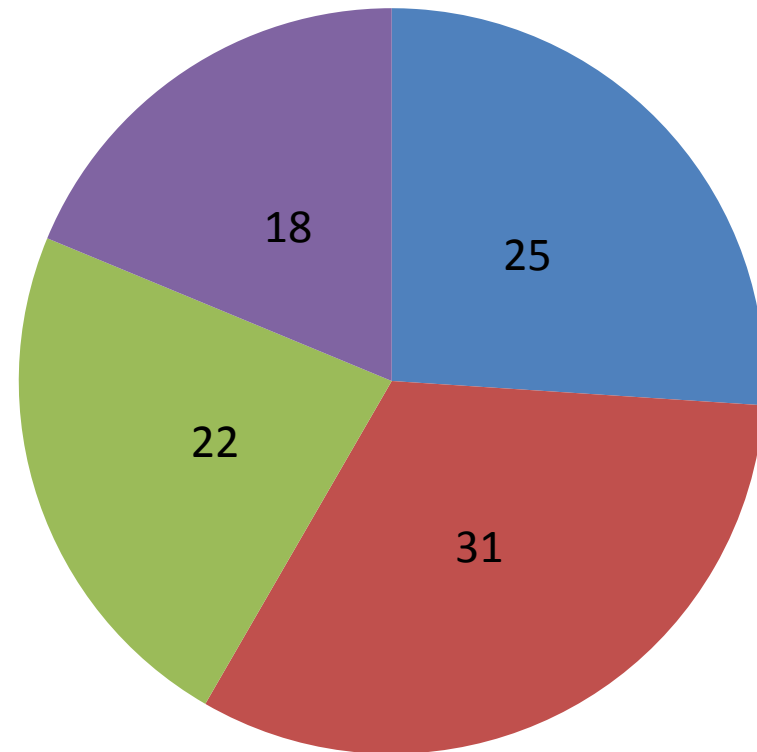
- Sentence best for showing 2 values
- Tables best small data sets
- Allows comparisons
- Gives exact values
- Usually better than a pie chart

Pie Chart Not Precise

PRE- MONITORING



POST-MONITORING



- Atherothrombotic
- Cardioembolism
- Lacunar
- Other

Tables More Accurate

SUBTYPE	PRE-MONITORING	POST-MONITORING
Atherothrombotic	28%	26%
Cardioembolic	26%	32%
Lacunar	25%	23%
Other	21%	19%

Features of Good Graphics

- Communicates complex data with clarity
- Encourages comparisons of data
- Keeps focus on substance
- Are efficient: short time & little ink
- Integrity: tells the truth

Features Good Graphics (2)

- Data/Text integration
- Respect scale
- Eye friendly
- Horizontal trend

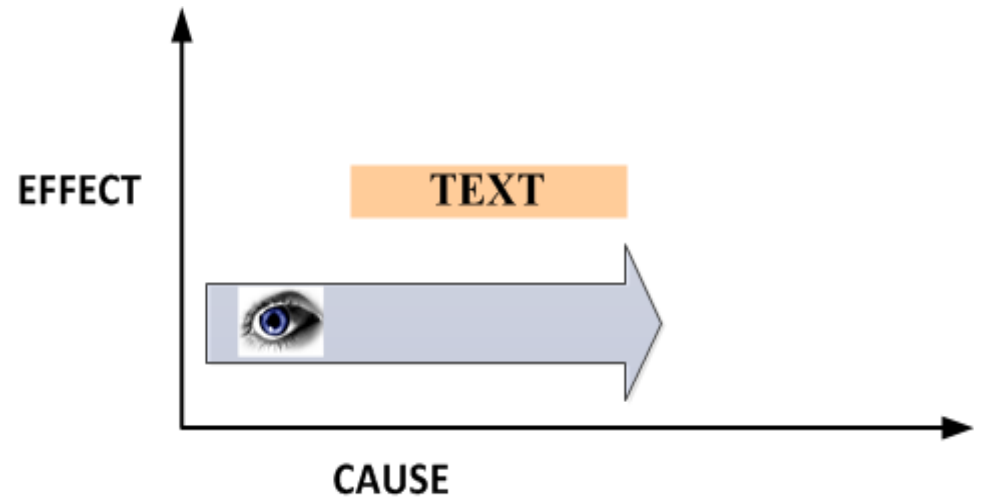
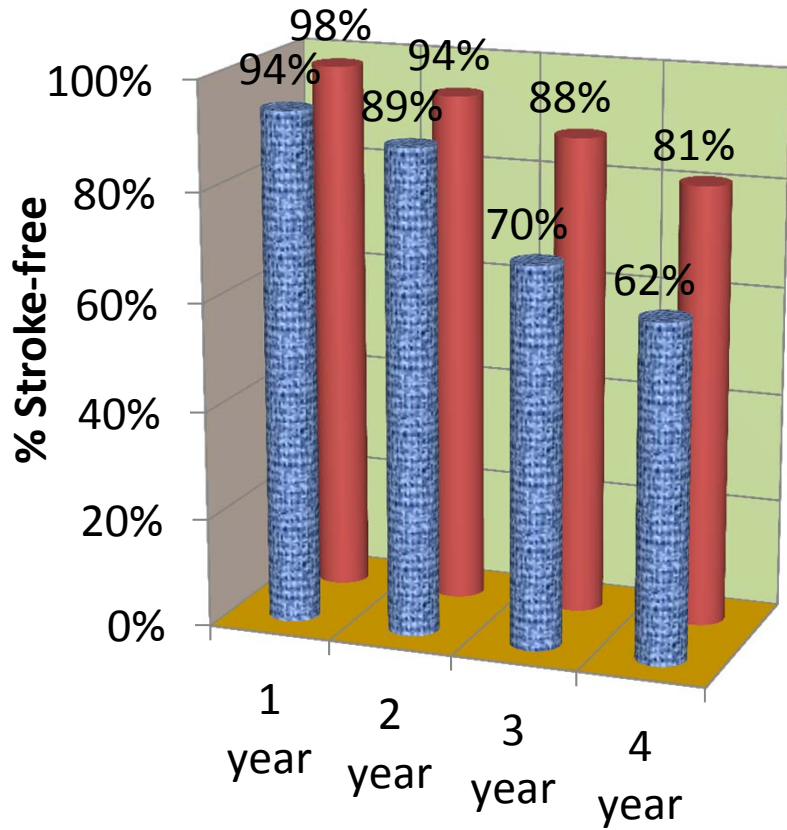


Chart Efficiency

POOR



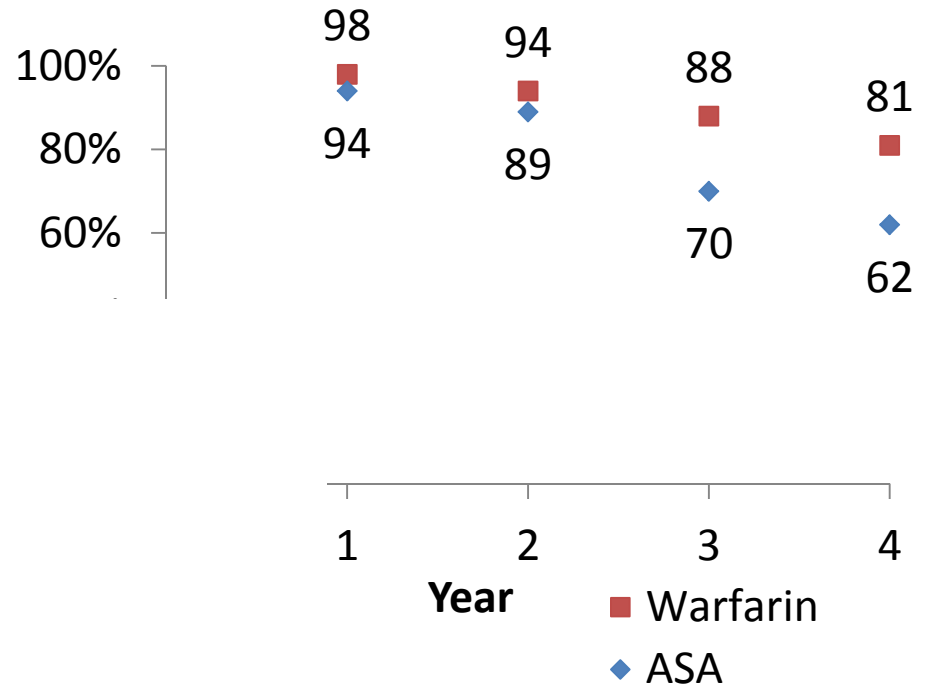
Year Since Stroke

ASA

Warfarin

BETTER

Stroke Free



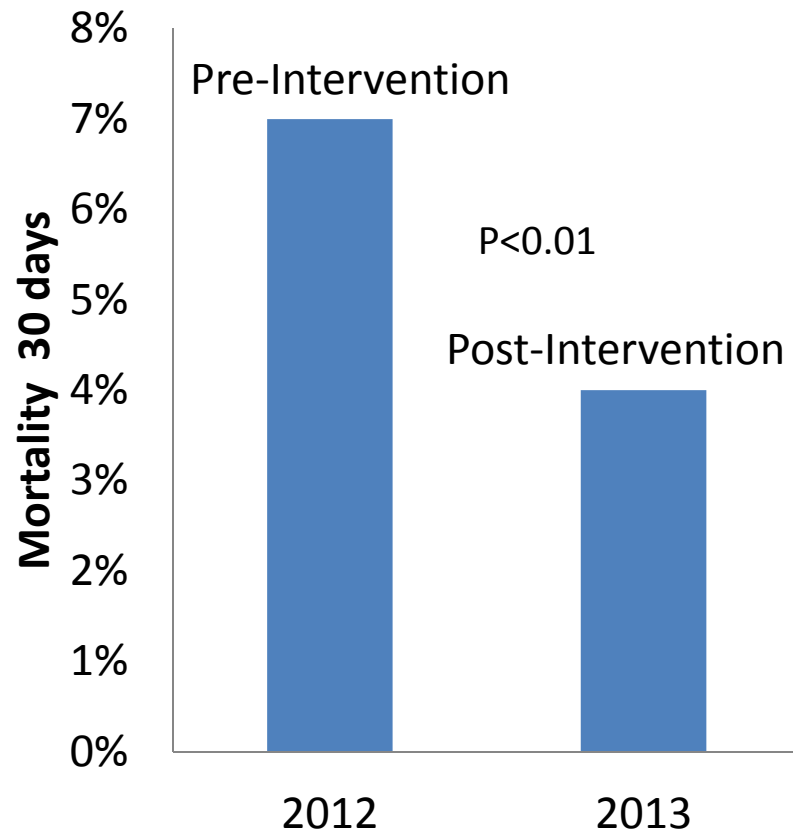
Graphic Integrity



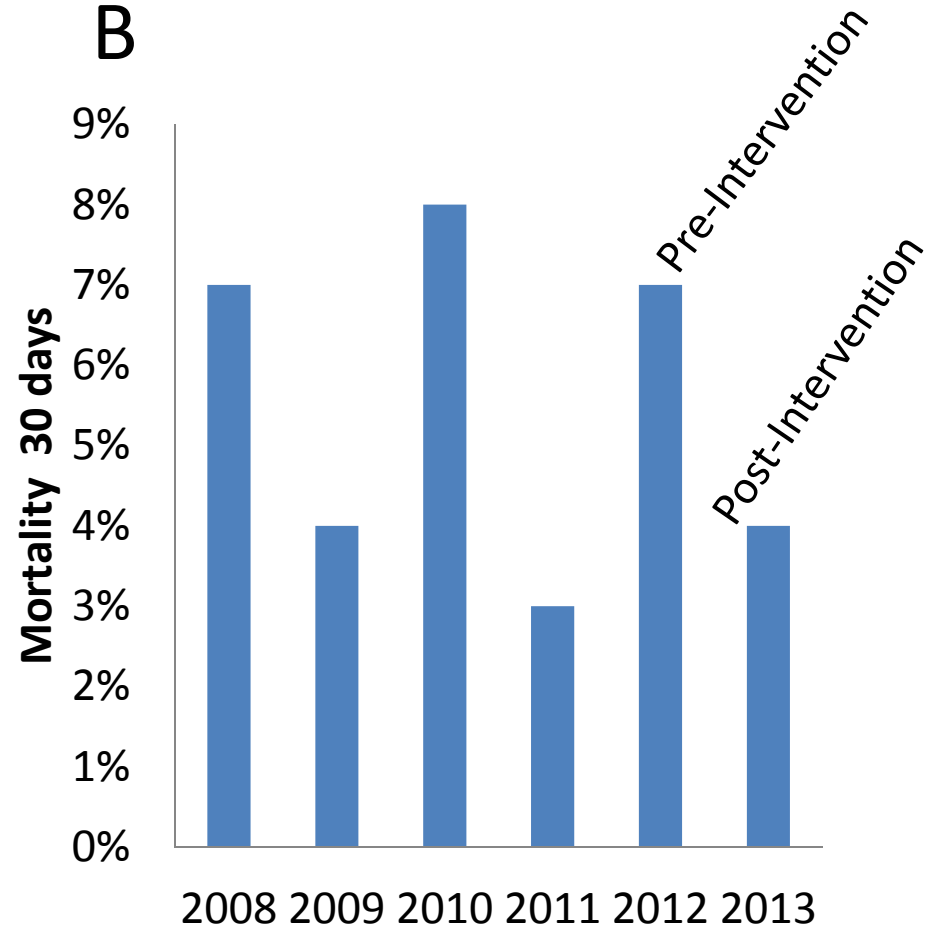
<http://lawinthereelworld.wordpress.com/2013/04/18/justice-served-in-the-legal-comedy/>

Integrity: Lack of Context

A

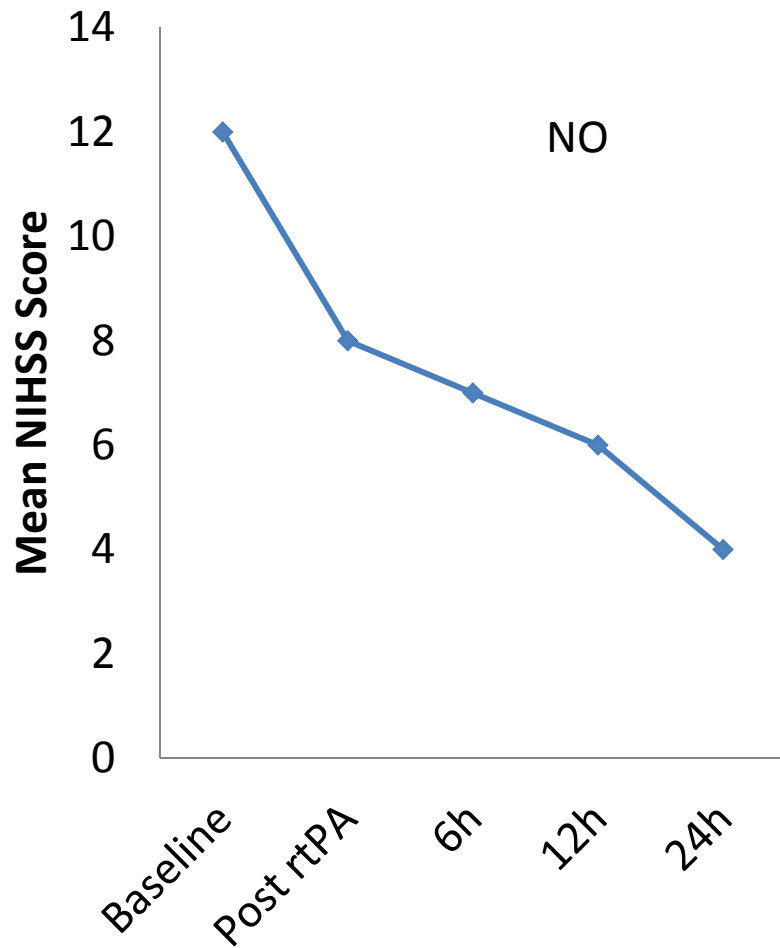


B

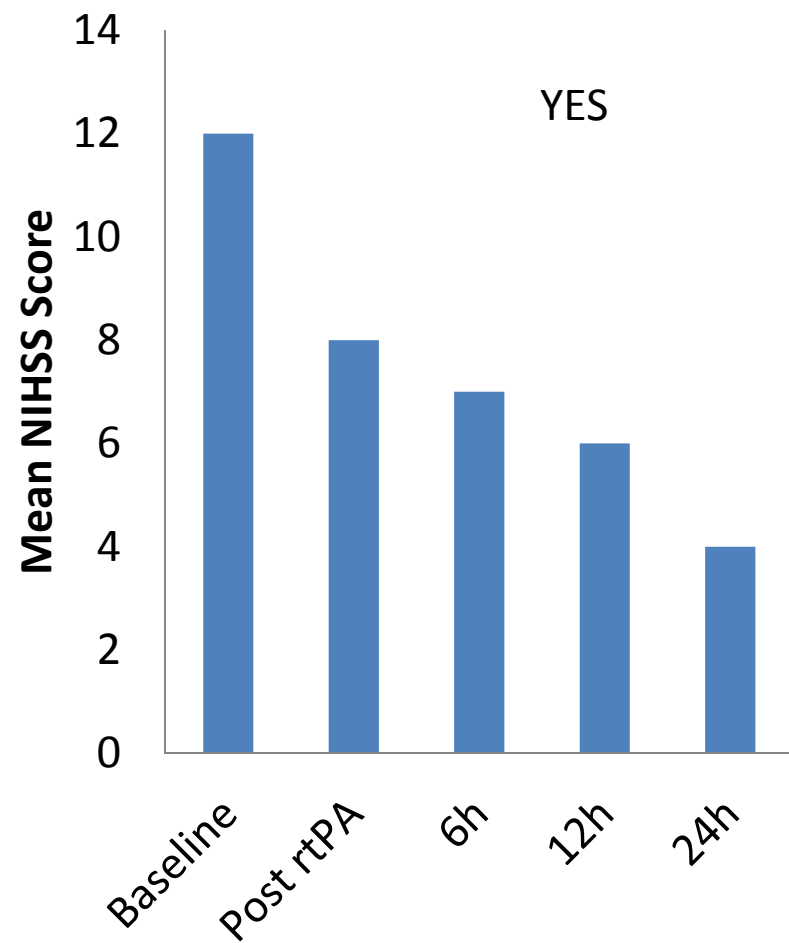


Integrity: Respect Discrete Data

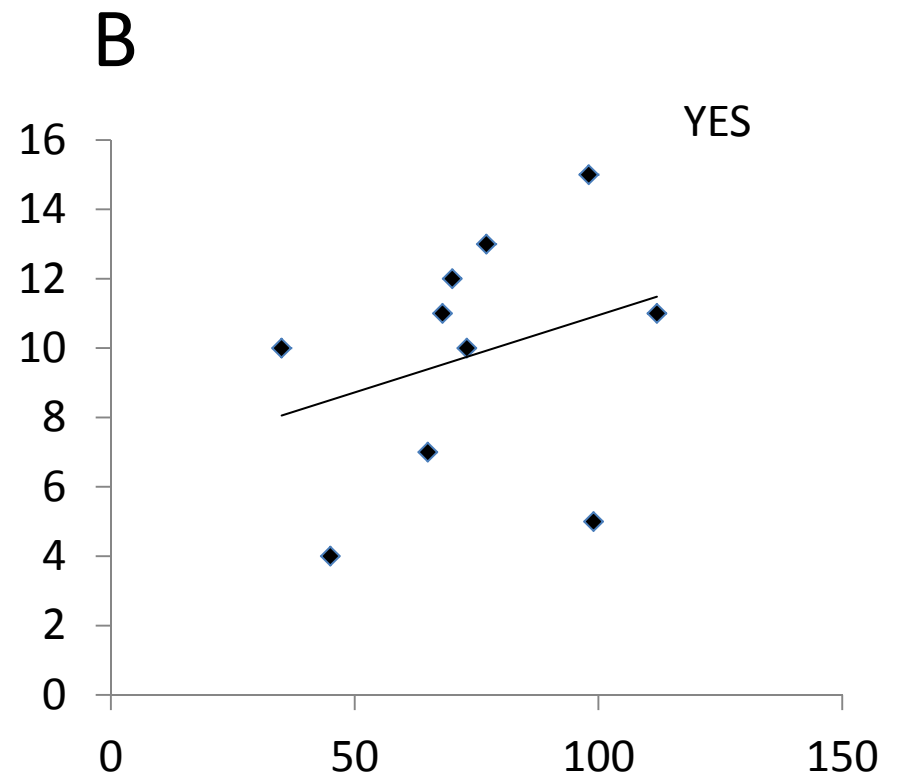
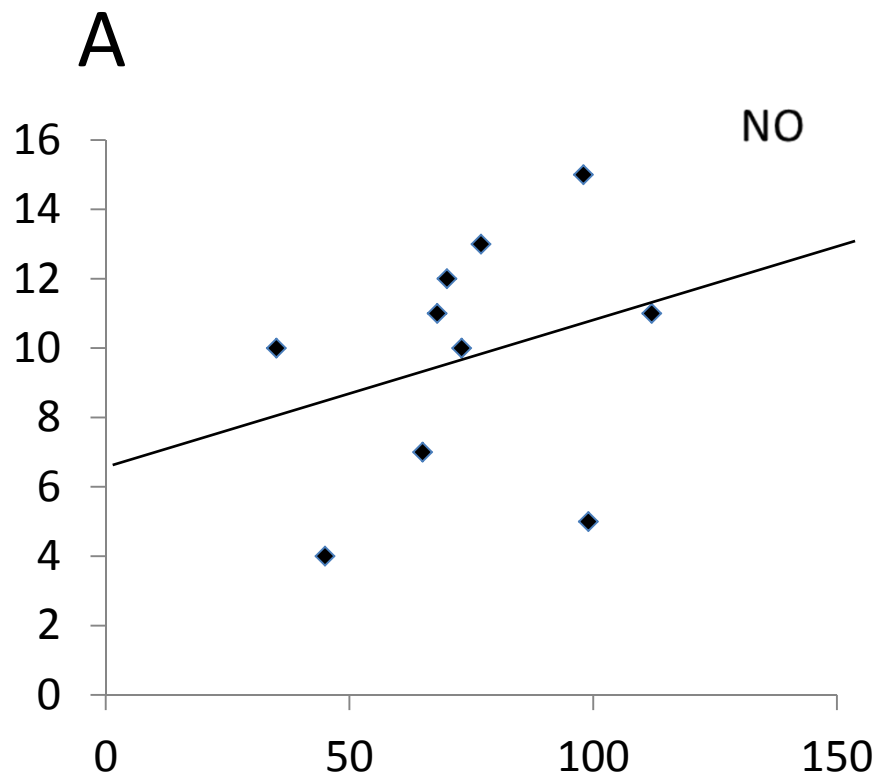
A



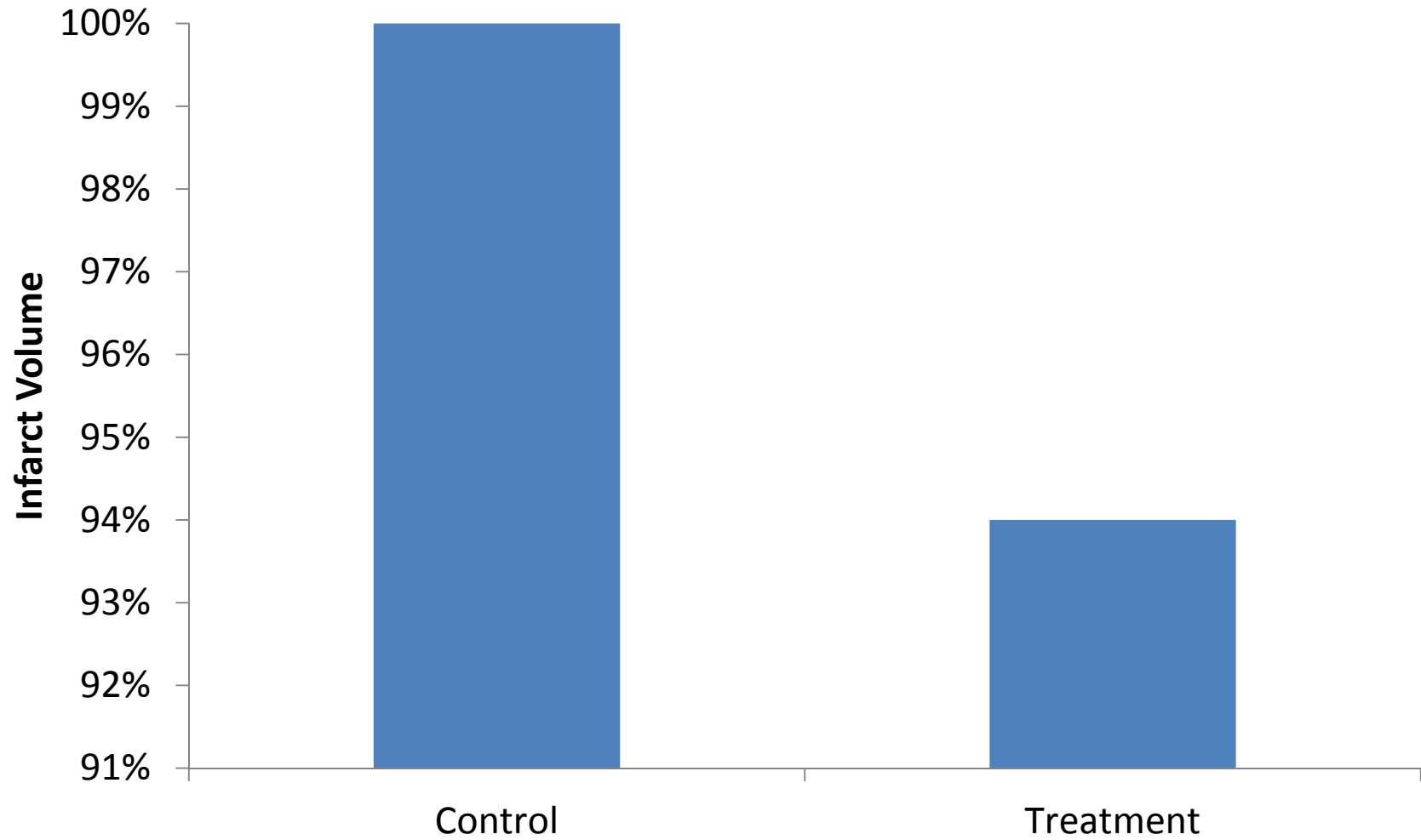
B



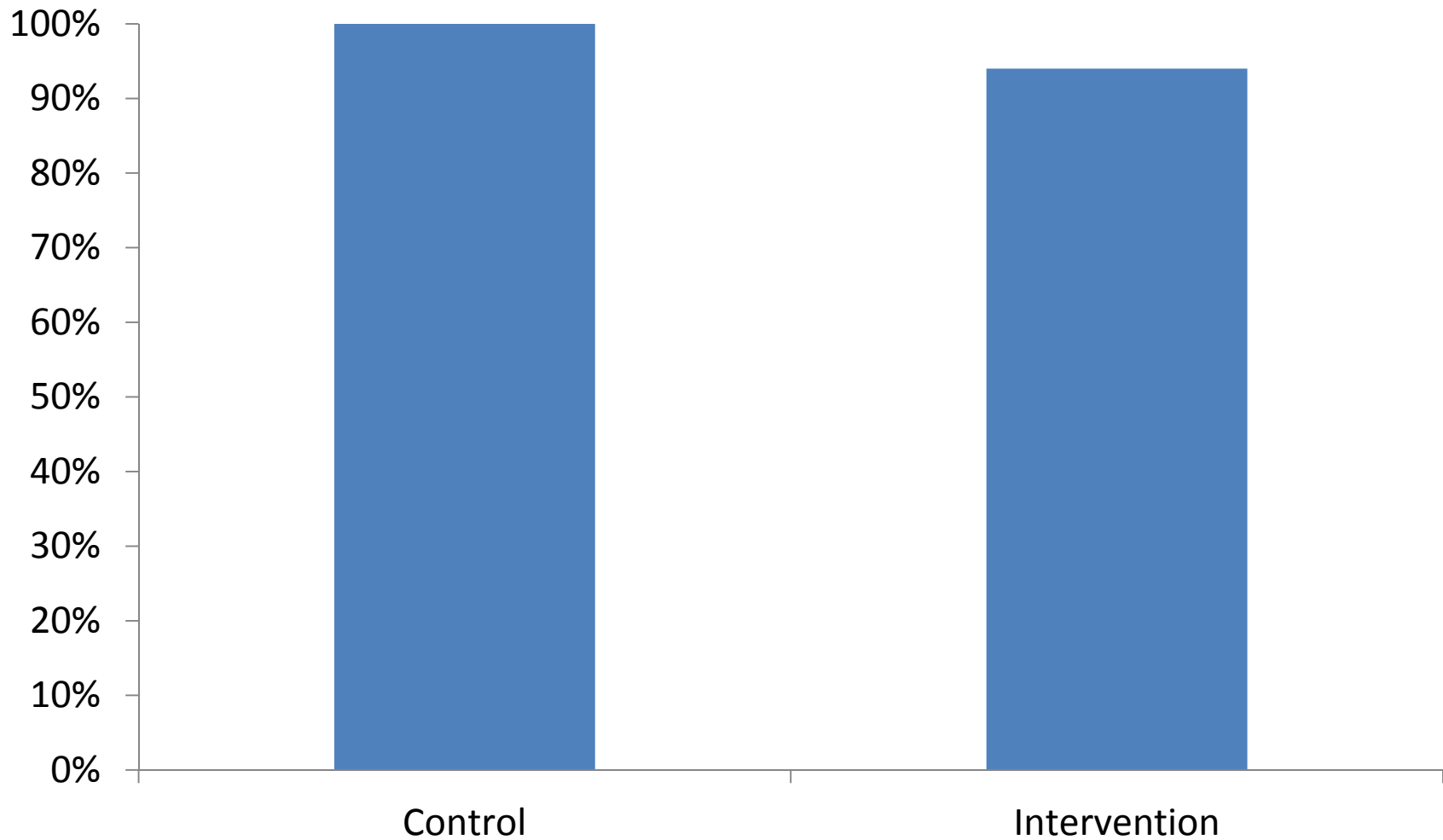
Integrity: Limit Graphic to Data



Axis Out of Scale

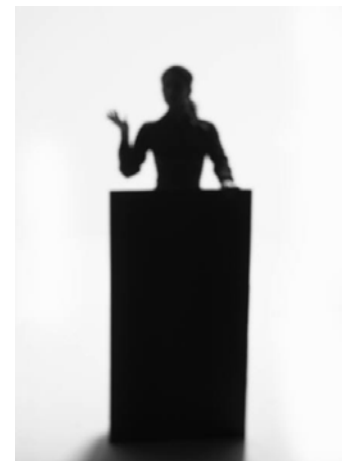


Integrity: Adjusted Scale



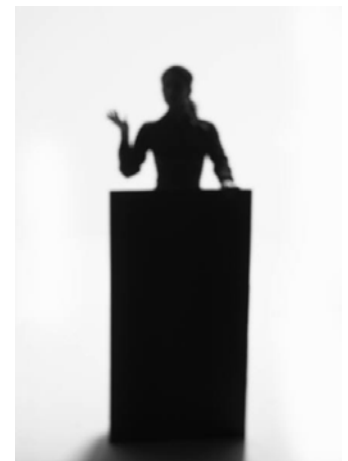
Oral Platform

- Localized in space and time
- You have an audience
- Control sequence and rhythm
- Expect some level of interaction



Oral Platform: Delivery

- Practice, practice
- Engage Audience
- Make eye contact
- Speak clear & calm
- Convey enthusiasm
- Rhythm: 1 min/slide



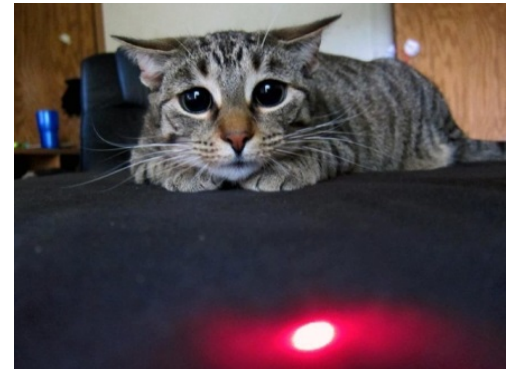
Oral Platform: Format

- Few words
- Text supports speech
- Bullet statements
- Six bullets/slide
- Seven words per line
- No special effects!



Oral Presentation: don't

- Read the slides
- Play with laser pointer
- Take a beta-blocker
- Loose your calm during questions

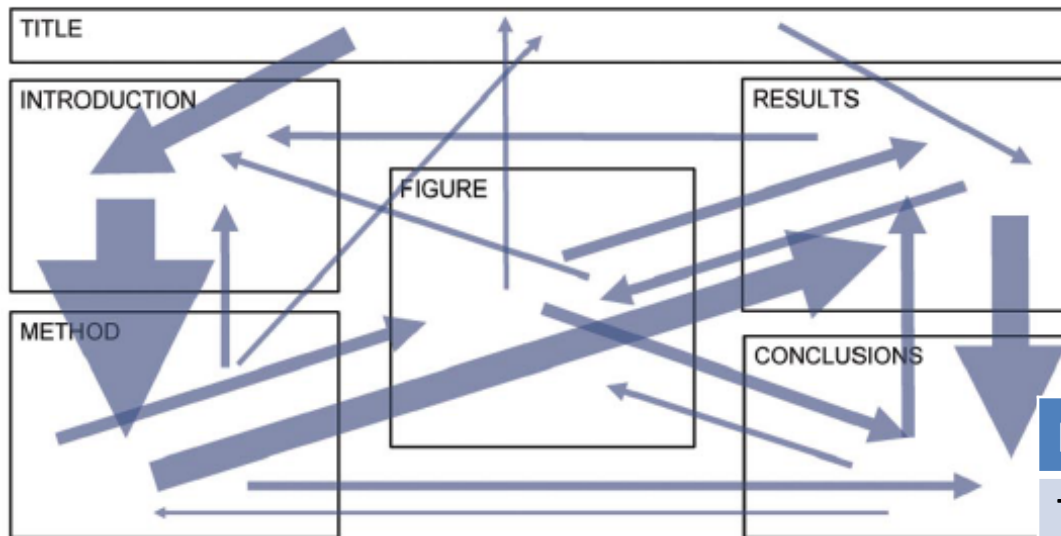


Tips for Posters

- Highly localized in space, spread in time
- You have to capture your audience
- Few seconds opportunity
- Control the sequence but no rhythm
- Most people don't interact



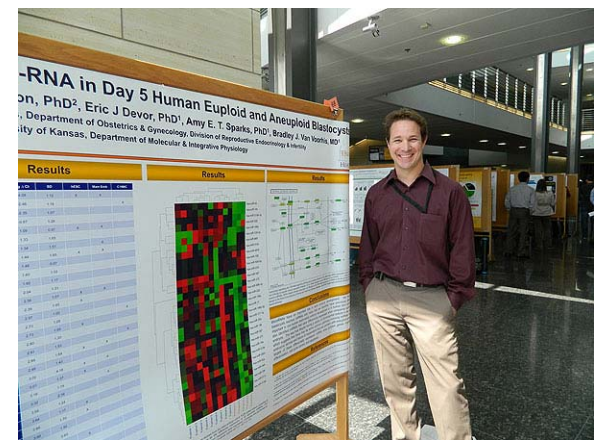
Eye Tracking in Posters



Proportion Time Fixating	%
Title	4.2
Introduction	24.3
Methods	19.3
Figures	8.9
Results	19.9
Conclusions	23.2

Effective posters

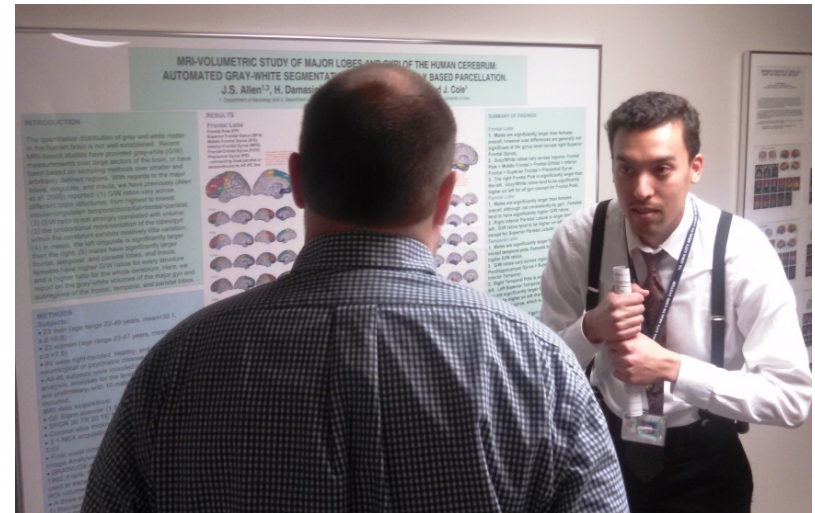
- Visually Appealing: Get attention
- Focused: Only “need to know” text
- Bullets and LARGE FONTS
- Use plenty of white space
- 50% Graphics/pictures
- Follow meeting guidelines



<http://www.icts.uiowa.edu/sites/default/files/DSCN1349.jpg>

Don't in Posters

- Use logos with title
- Distracting arrangements
- Too busy
- Too little graphics
- Poster guard & stare



Summary

- Be relaxed and enthusiastic
- Have a clear central message
- Work on a good title
- Use a balanced framework
- Optimize color/text
- Plenty of excellent graphics

Questions?

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