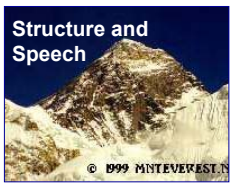
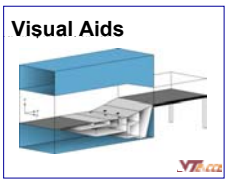
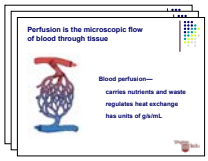
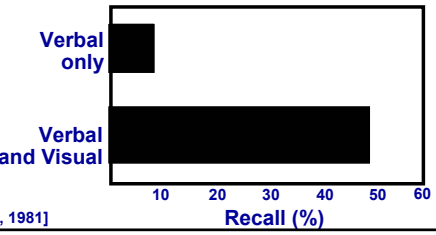
Presentations can be viewed from three stylistic perspectives





An advantage of using slides is that audiences remember more when the slides are well-designed





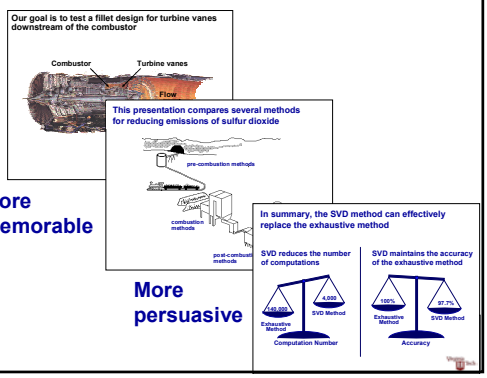
[Wharton, 1981]

This talk presents a slide design that is much more effective than the default design of PowerPoint

More quickly read

More memorable

More persuasive



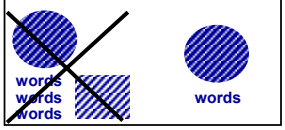
To allow audiences to read your slides quickly, you have to choose a proper typography and layout

Choose legible type

Sans serif type

~~SERIF TYPEFACE~~

Choose a helpful layout



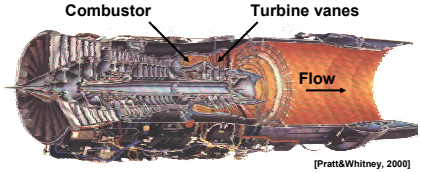
Much more effective than PowerPoint's default layout is a sentence headline supported by images

Sentence headline

Key image

Needed words

Our goal is to test a fillet design for turbine vanes downstream of the combustor



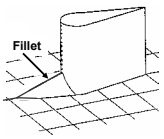
[Pratt&Whitney, 2000]

The purpose of the fillet design is to reduce vortices that cause aerodynamic penalties

Fillets reduce leading edge vortices in nature and in engineering

Fillet on dorsal fin of shark

Fillet on Seawolf submarine



[Devenport et al., 1991]

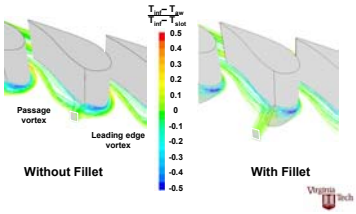
The sentence headline should state succinctly the purpose or assertion of the slide

A strong headline—

identifies the slide's purpose for the audience

identifies the slide's purpose for the speaker

Computations show that the fillet prevents the leading edge vortex and delays the passage vortex

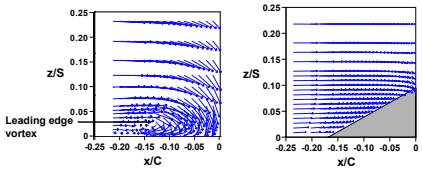


Without Fillet

With Fillet

The body of a slide should support the headline primarily with images and with words where needed

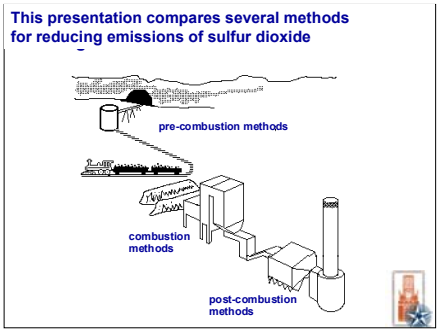
Measurements show that the fillet prevents formation of the leading edge vortex



Velocity profile: vane without fillet

Velocity profile: vane with fillet

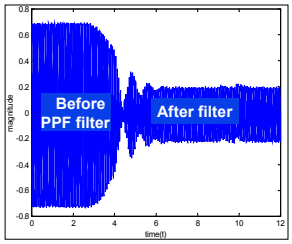
To make slides memorable, you have to consider what to include and what to exclude



21

Slides should include key images and results

Images



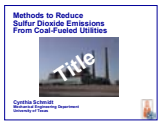
Results

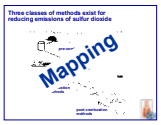
[Paivio, 1981]
[Levin et al., 1987]

22

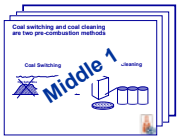
Slides should also include signals for the presentation's organization

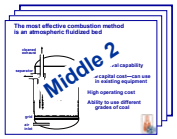
Beginning



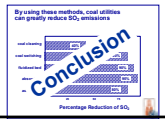


Middle



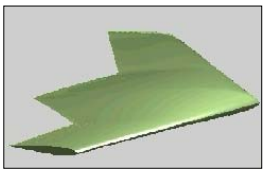


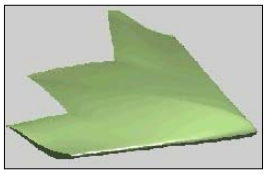
Ending



23

Computational Analysis of the Aerodynamic Energy Required of Morphing Wings





Greg Pettit, Harry Robertshaw, and Daniel J. Inman
Center for Intelligent Materials, Systems and Structures
Air Force Office of Scientific Research (F49620-99-1-0294)

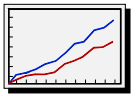
24

CIMSS

This presentation evaluates composite materials for the bipolar plates of fuel cells

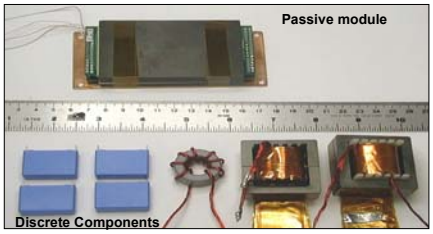
Role of bipolar plates in fuel cells

Comparison of bipolar plate materials



Evaluation of bipolar plate performance

Power passive modules perform the same functions as discrete circuits but with smaller volumes



	Discrete circuit	Passive module
Total volume (cm^3)	168	82

The total volume is cut by more than half

In summary, the phantom for blood perfusion has many useful applications

The phantom can—

- produce reasonable and reproducible perfusion
- allow for simple and inexpensive construction
- be modified for future experiments

Questions?

Bullets are not memorable, because bullets do not show the connections between details

Headline misleads →

Key assumption is buried →

Review of Test Data Indicates Conservatism for Tile Penetration

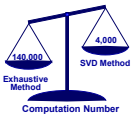
- The existing SOFI on tile test data used to create Crater was reviewed along with STS-87 Southwest Research data
  - Crater overpredicted penetration of tile coating significantly
    - Initial penetration to described by normal velocity
      - Varies with volume/mass of projectile (e.g., 200ft/sec for 3cu. In)
    - Significant energy is required for the softer SOFI particle to penetrate the relatively hard tile coating
      - Test results do show that it is possible at sufficient mass and velocity
    - Conversely, once tile is penetrated SOFI can cause significant damage
      - Minor variations in total energy (above penetration level) can cause significant tile damage
  - Flight condition is significantly outside of test database
    - Volume of ramp is 1920cu in vs 3 cu in for test

2/21/03 6

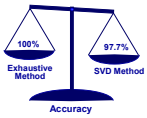
The slide design presented here is more persuasive than PowerPoint's default

In summary, the SVD method can effectively replace the exhaustive method

SVD reduces the number of computations



SVD maintains the accuracy of the exhaustive method



Sentence headlines can clarify assertions

Images in body can supply cogent evidence

Design leads to fewer slides, which can increase ethos

In summary, the slide design presented here is much stronger than PowerPoint's default design

The design can be read more quickly

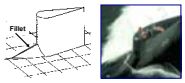
The design is more memorable

The design creates a more compelling argument

Fillets reduce leading edge vortices in nature and in engineering

Fillet on dorsal fin of shark

Fillet on Seawolf submarine



[Devenport et al., 1991]

Templates: http://writing.eng.vt.edu/slides.html