

Visual Explanations

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ATLAS: Applied Technologies for Learning in the Arts & Sciences

Students frequently criticize PowerPoint in evaluations.

- ! “PowerPoint lectures are boring. They just read one slide after another.” -student

Students frequently criticize PowerPoint in evaluations.

- ! “The instructor didn’t even know the slides had mistakes & were wrong!” -student

Students frequently criticize PowerPoint in evaluations.

- ! “Slides have way too much stuff...can’t tell what’s important.” –student

Students frequently criticize PowerPoint in evaluations.

- ! “Too fast! Too much!” -student

Students frequently criticize PowerPoint in evaluations.

- ! “PowerPoint allows speakers to pretend they are giving a real talk.” -Edward Tufte

Don't let your slides become your presentation!

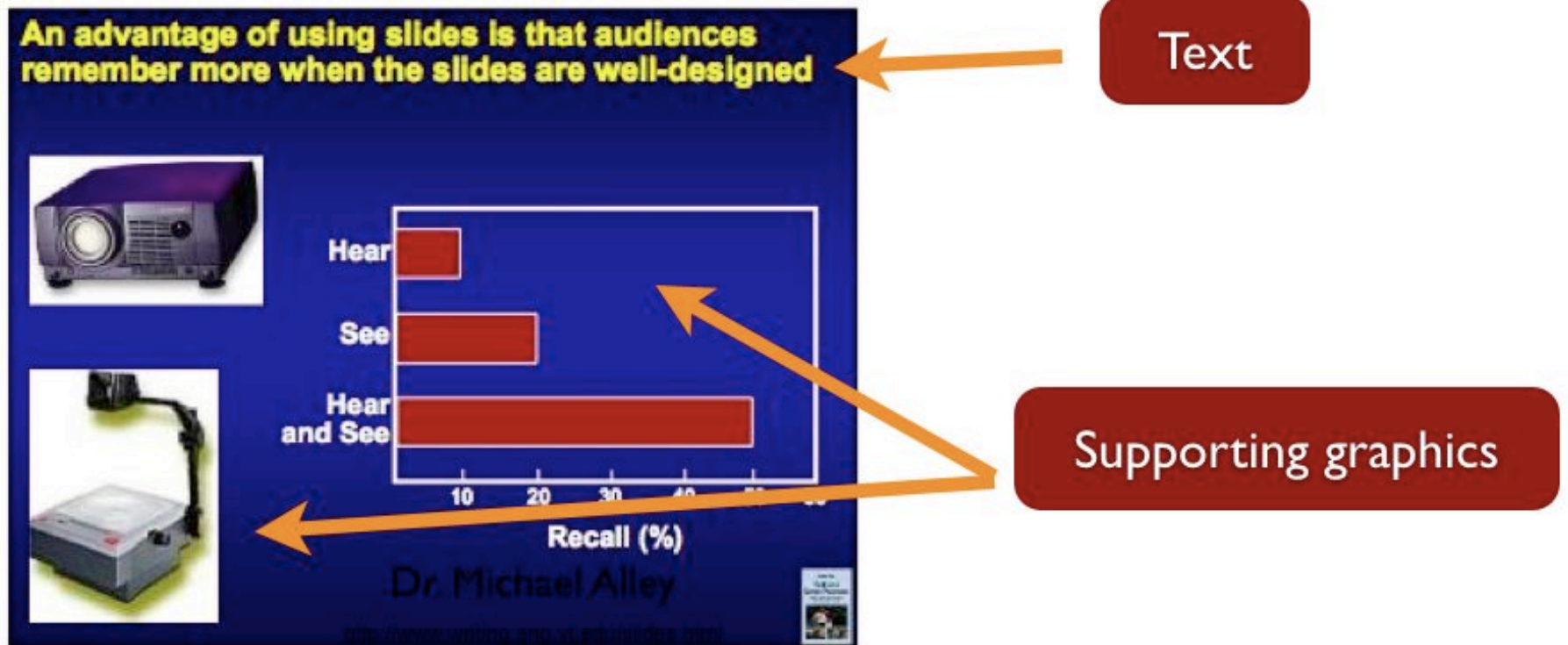


Write
outline

Identify
key points

Make
visuals


Students learn better when you use both text and visuals (Alley 2005).




Decorative graphics impede learning (Mayer 2001).

Technology-based activities

- Web-based images & text
- WebQuests
- Audio, Video delivery
- Text chatting
- Powerpoint presentations
- Hot Potatoes quizzes



Decorative graphic



Examples of Redesigned Slides



Original slides have a beige background.

Redesigned slides have white background,
with **New** in upper right corner.

Innovation-Development Process

... begins with recognition of a problem or need, which stimulates research and development activities designed to create an innovation to solve the problem or need.

Rogers, 2003

Rogers (2003) identifies three major steps in the innovation-development process.

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graph LR; A[Needs] --> B[R&D]; B --> C[Innovation]
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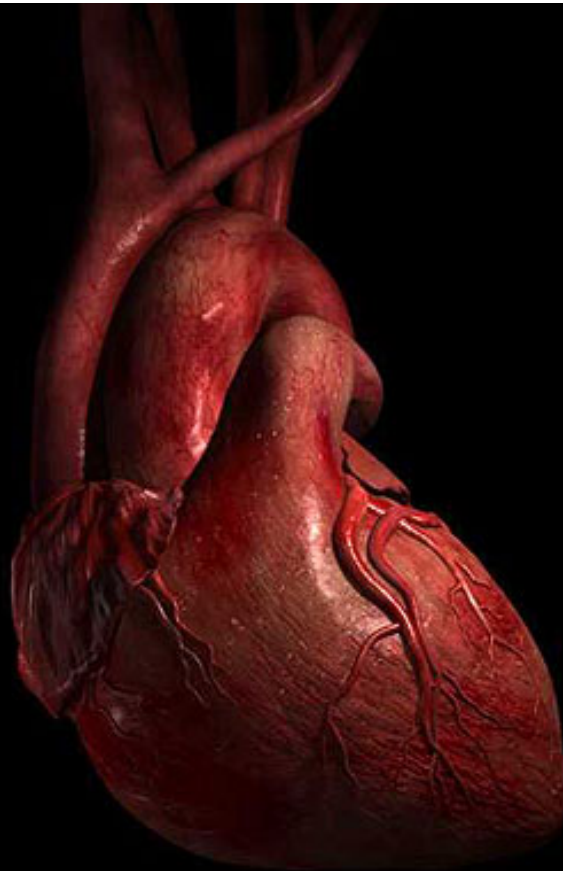
Needs

R&D

Innovation

Heart

- ! Is a muscle
- ! Circulates blood
 - !into the heart through veins
 - !Out of the heart through arteries

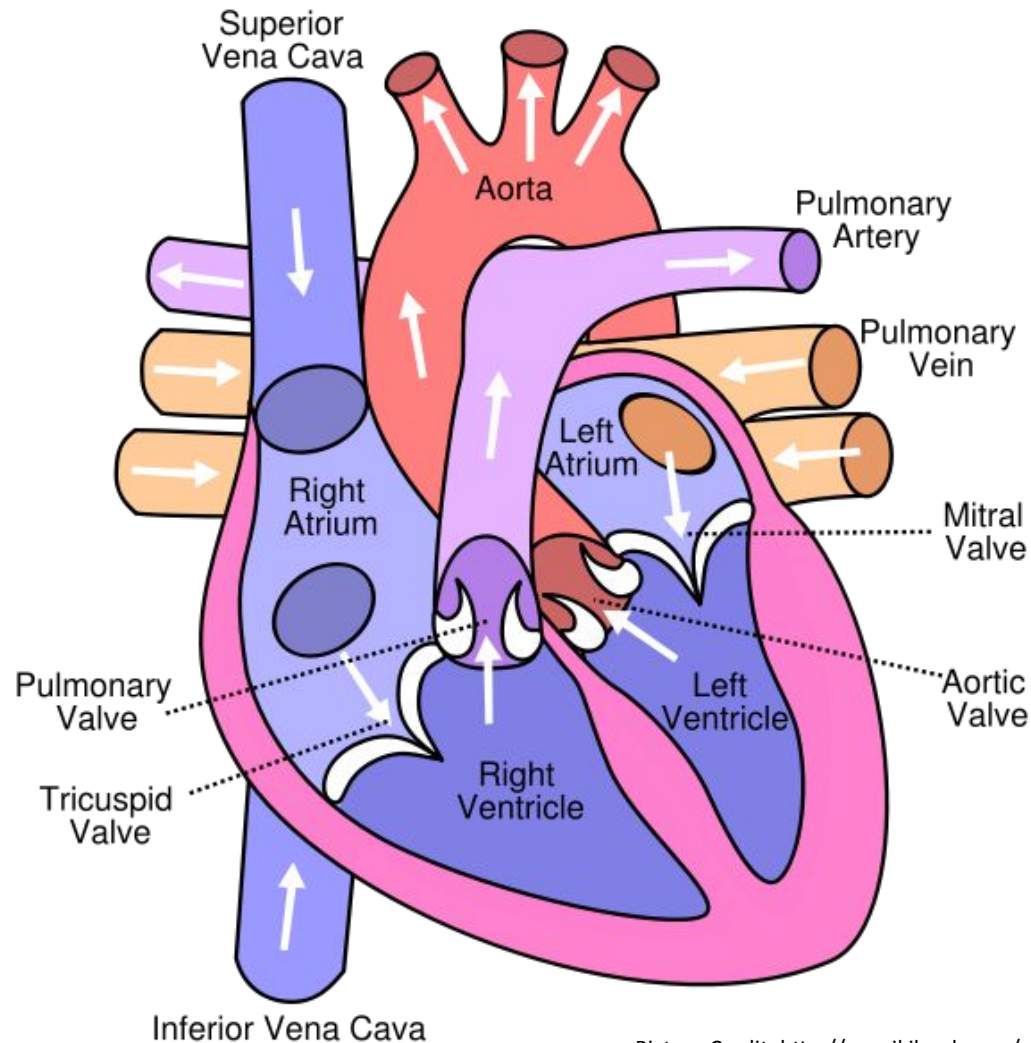


The heart is the muscle that circulates blood through veins and arteries.

Parts of the Heart

- ! Left Atrium
 - !Mitral Valve
- ! Left Ventricle
- ! Right Atrium
 - !Tricuspid Valve
- ! Right Ventricle
 - !Pulmonary Valve

The heart is a muscle consisting of chambers and valves.



Branches of US Government

- ! Legislative

- !House of Representatives

- !Senate

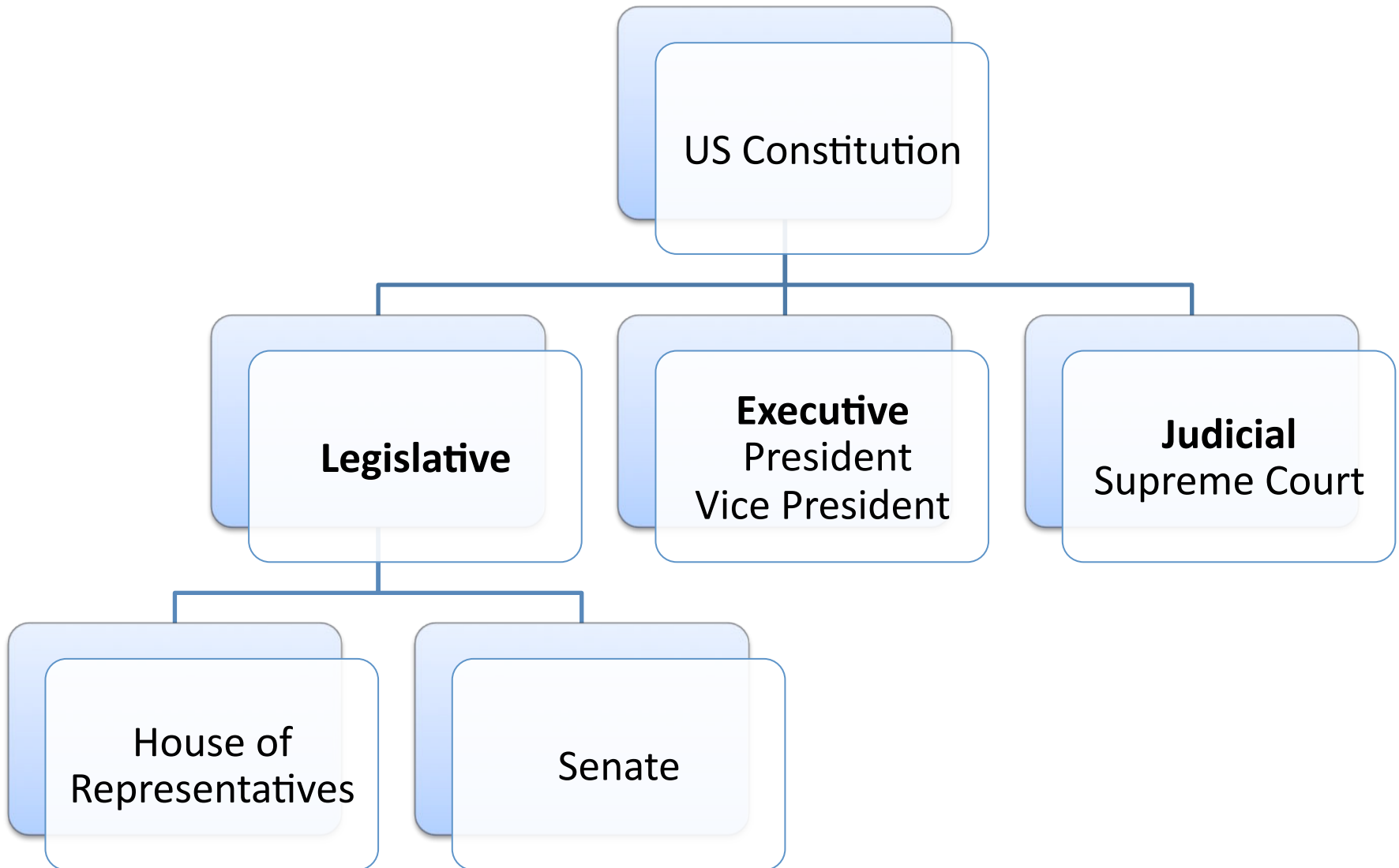
- ! Executive

- !President & Vice President

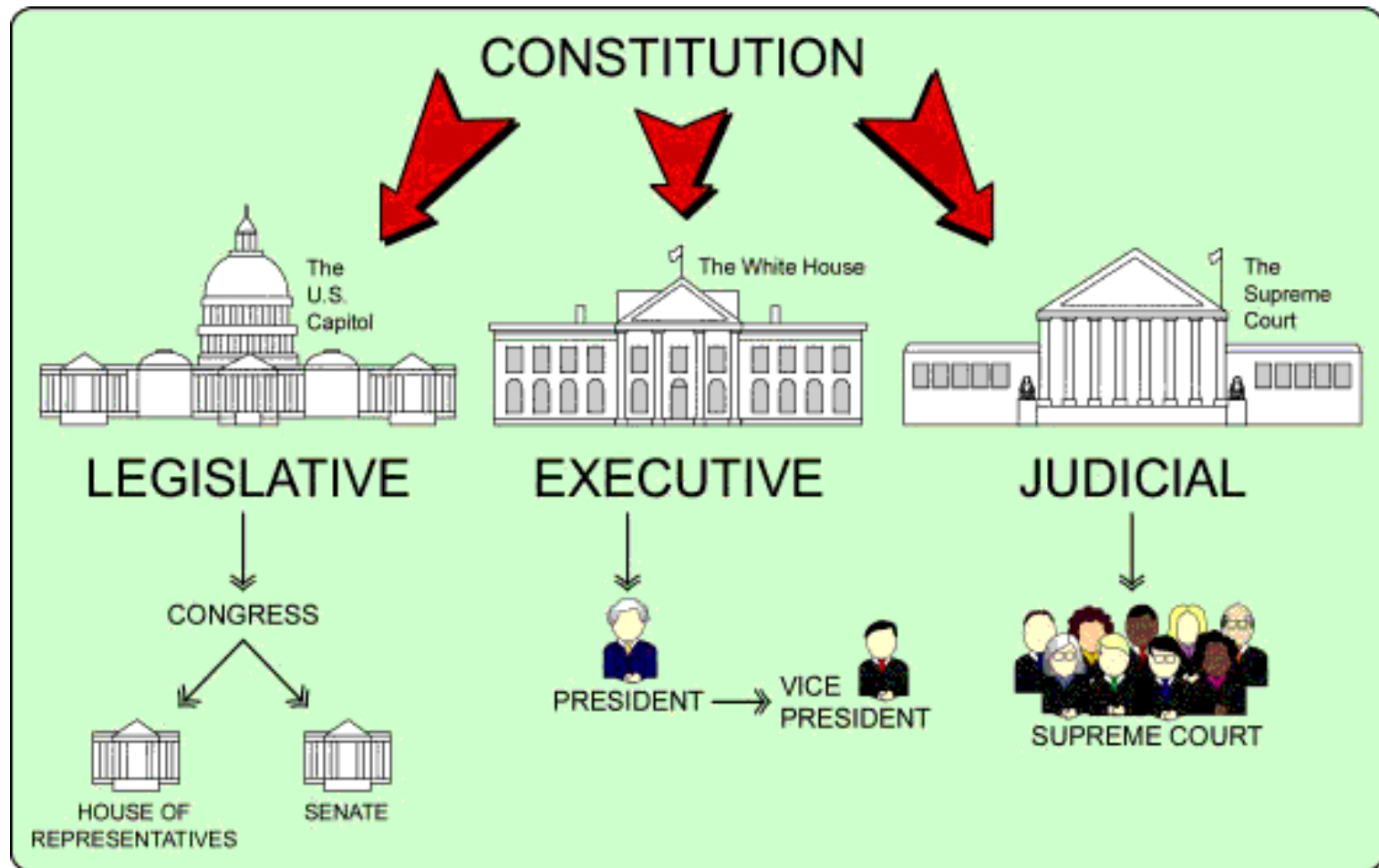
- ! Judicial

- !Supreme Court

The US Constitution establishes three major branches of government.



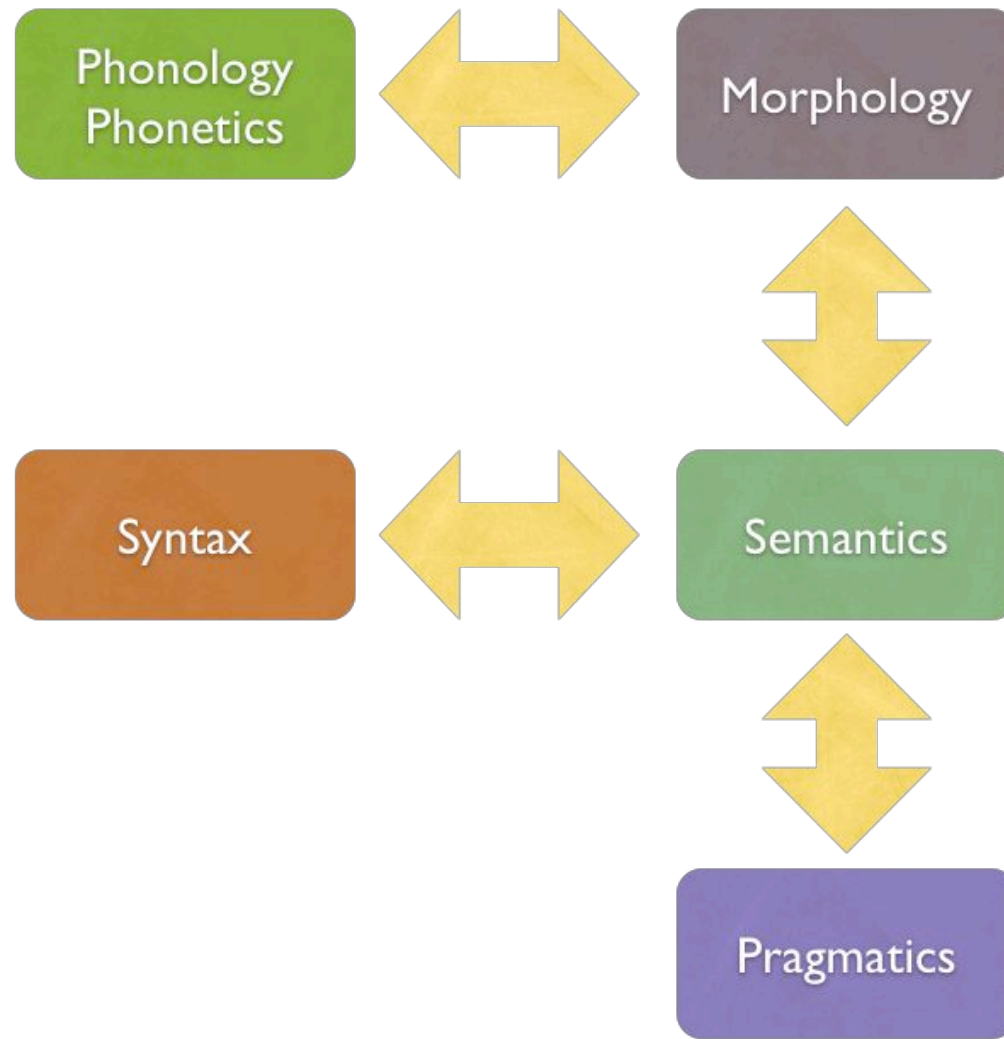
The US constitution establishes three major branches of government.



Subfields of Linguistics

- ! Phonetics/Phonology
- ! Morphology
- ! Syntax
- ! Semantics
- ! Pragmatics

Some subfields of linguistics are largely independent.



Peer Observation Steps

- 1.! Planning & Prep
- 2.! Pre-conference
- 3.! Observation
- 4.! Reflection
- 5.! Post-conference

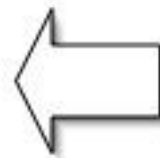
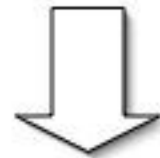
Peer Observation has 5 steps.



Planning & Prep

Pre-conference

Observation

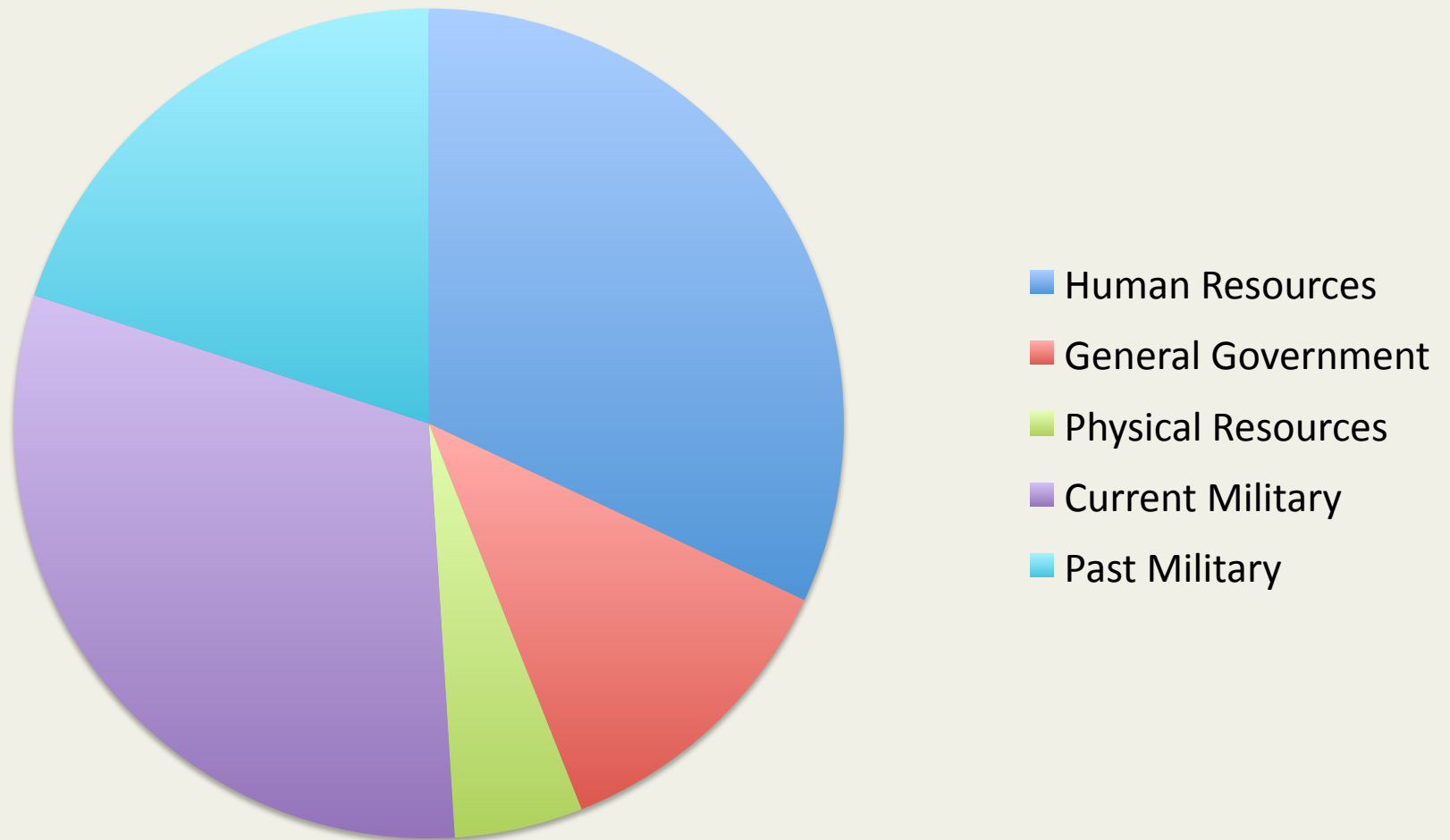


Post-conference

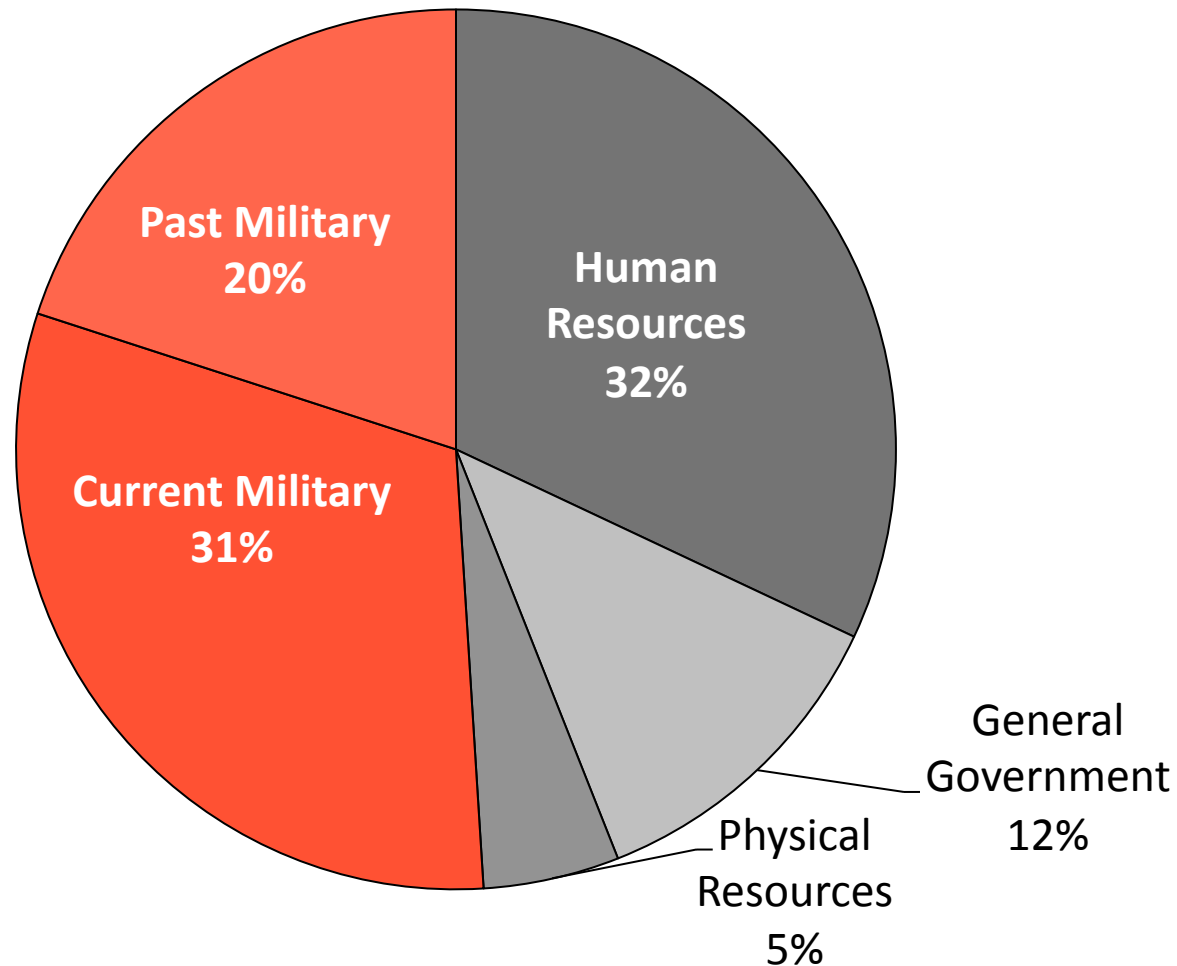
Reflection

US Budget allocation

US Budget



Over half of the US budget goes toward military-related expenditures.



Don't let your slides become your presentation!



Write
outline

Identify
key points

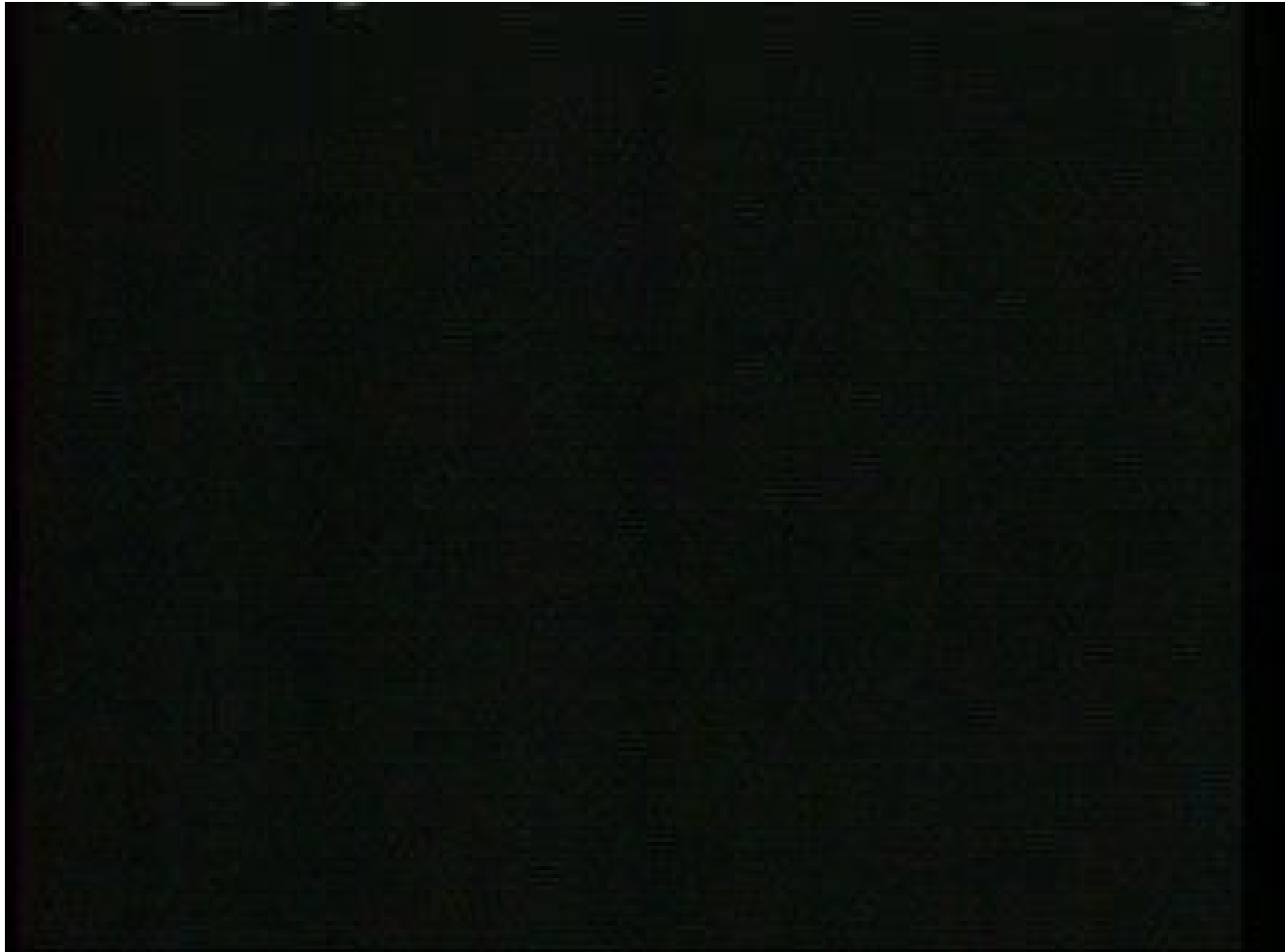
Make
slides

Nuts & Bolts

Location options for giving presentations on campus.

- ! CITES ITS “smart” classrooms.
<http://classtech.cites.uiuc.edu>
- ! College/School/Dept presentation room (equipment varies).
- ! Bring a projector & laptop to an “unsmart” classroom.

Embedded videos link out to video files on
your computer.



Text links will open external files (like videos)
using the external player.

- ! [Space Shuttle Launch External Camera](#)

Projection slides are usually 800-1000 pixels wide on a projection screen.



1000 px

How to get started with graphic organizers

- ! Check out “SmartArt Graphics”, pre-made graphic organizers included with PowerPoint
- ! Check out the simple shape tools in PowerPoint
- ! Check out specialized graphing software

Devise your own visual explanation(s) in three
easy steps!



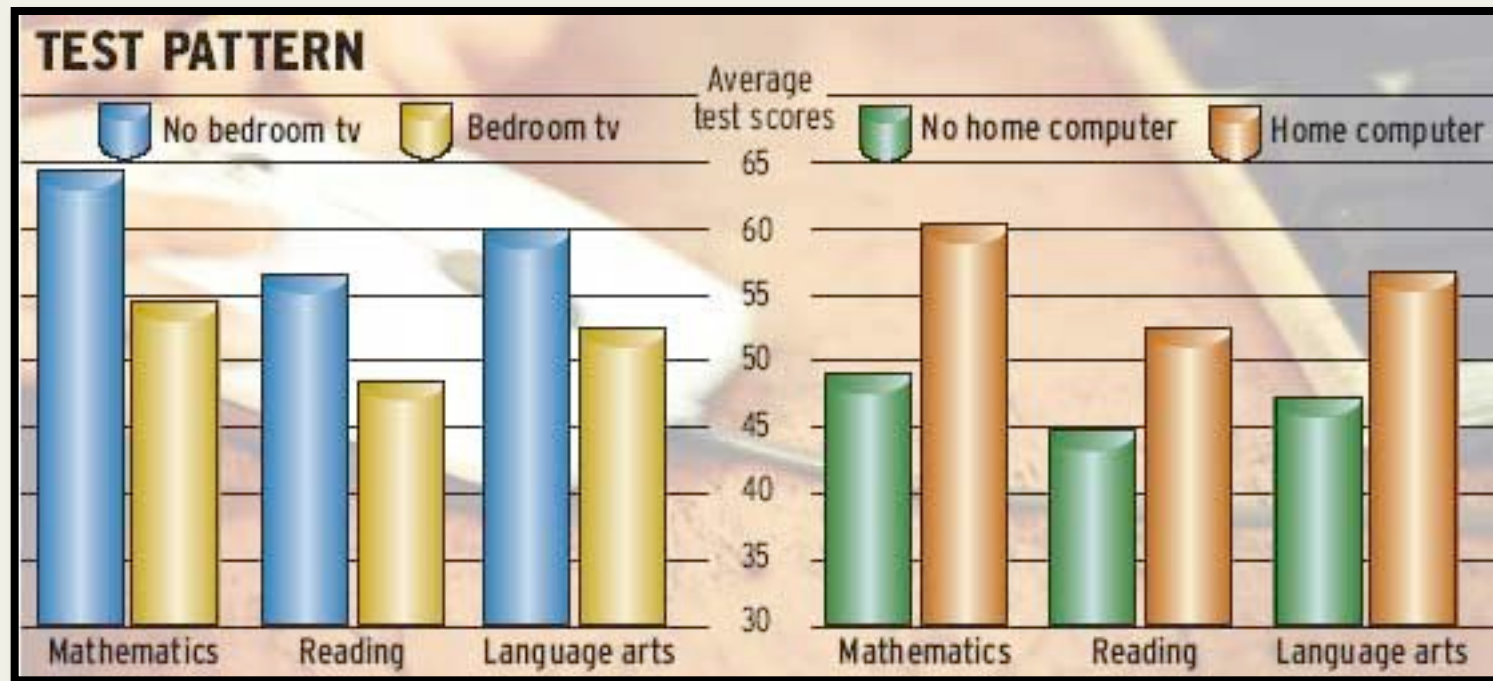
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graph LR; A[Proposal] --> B[Make Slides]; B --> C[Share]
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Proposal

Make
Slides

Share

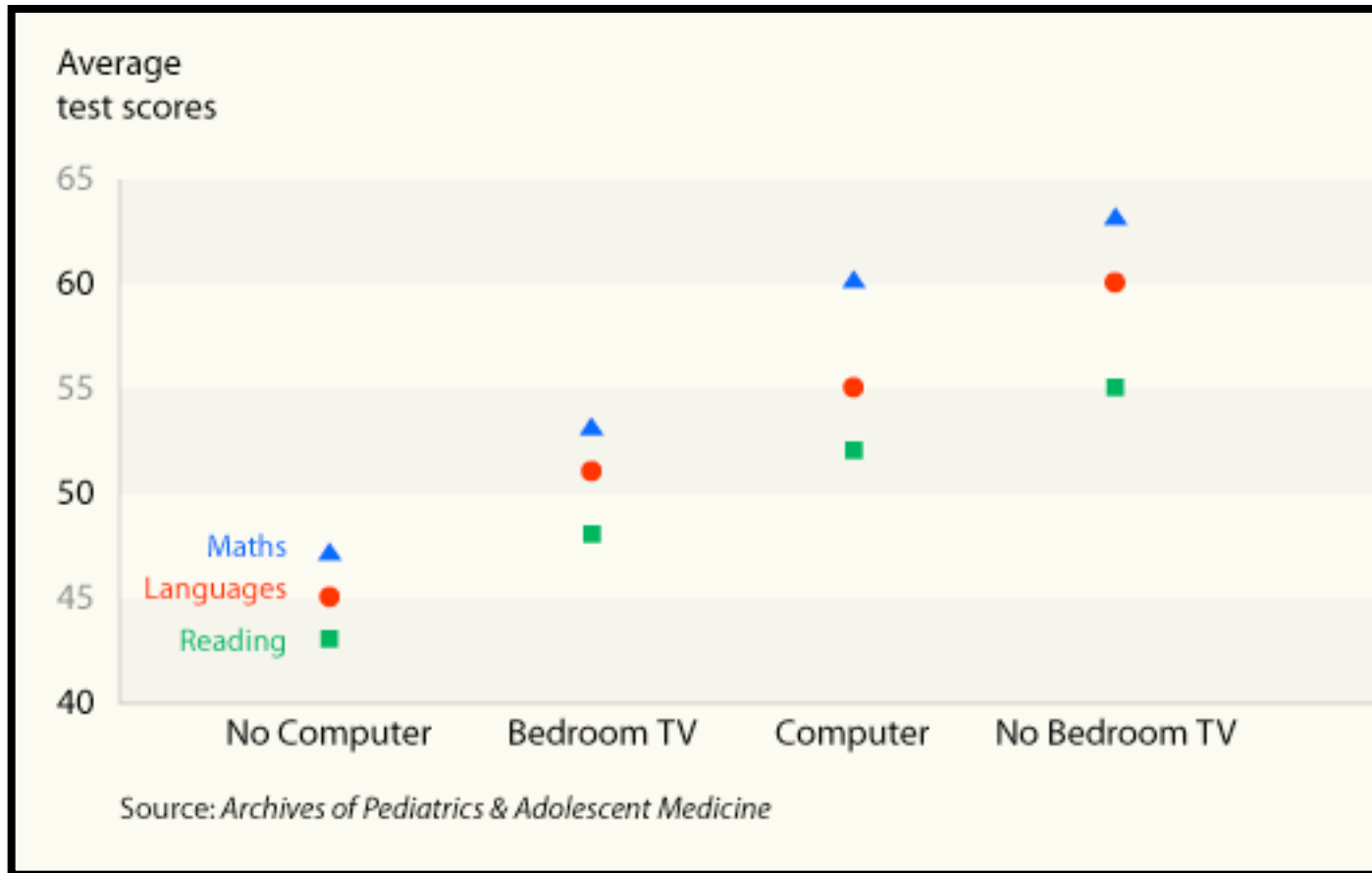
TVs, Computers, and Test Scores



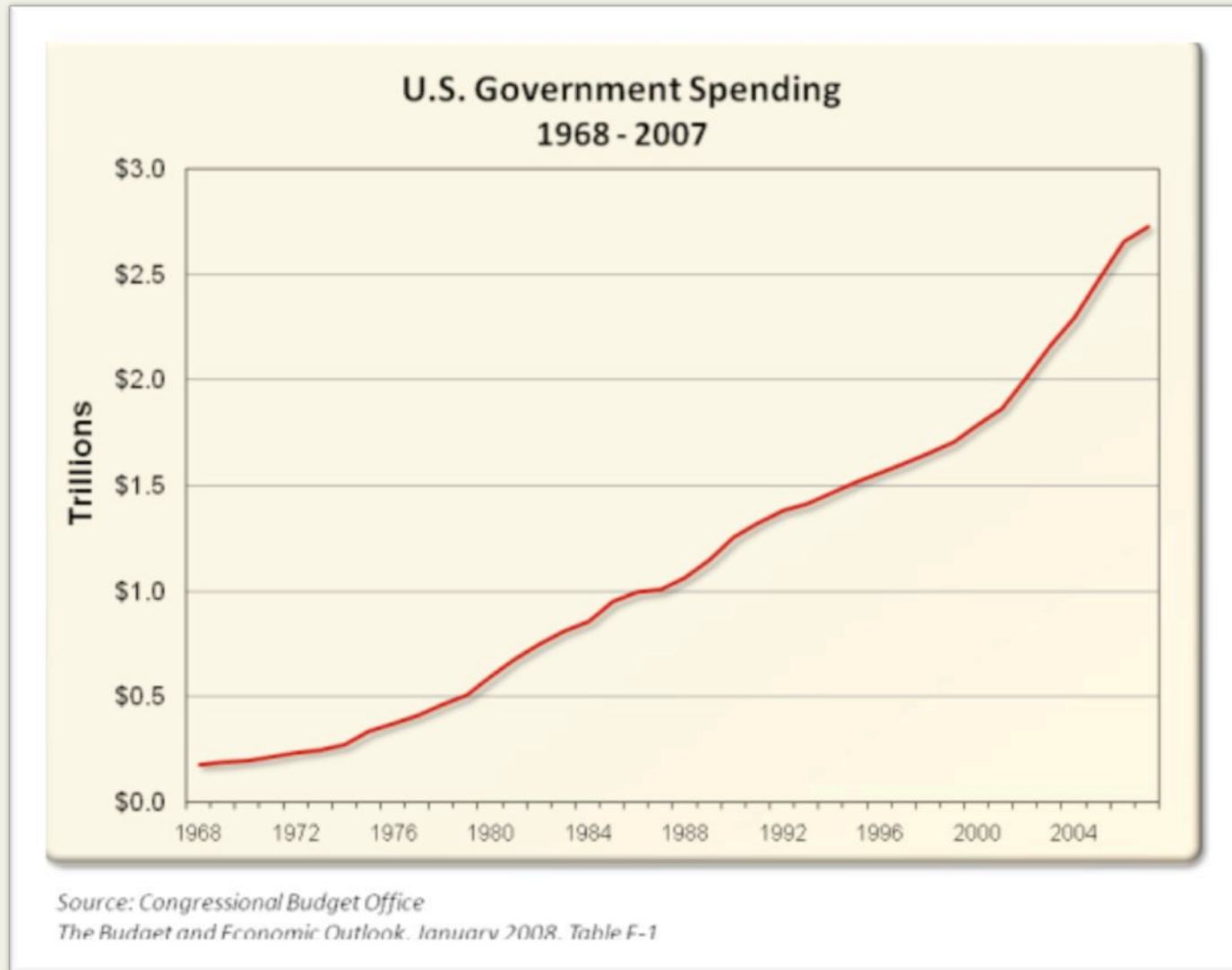
Activity: Devise your own visual explanation!

- ! Is there a concept or topic in your field that lends itself to a visual explanation?
- ! Do the visuals/diagrams already exist? Could you create them?
- ! How would you display or deliver your visuals for your students?

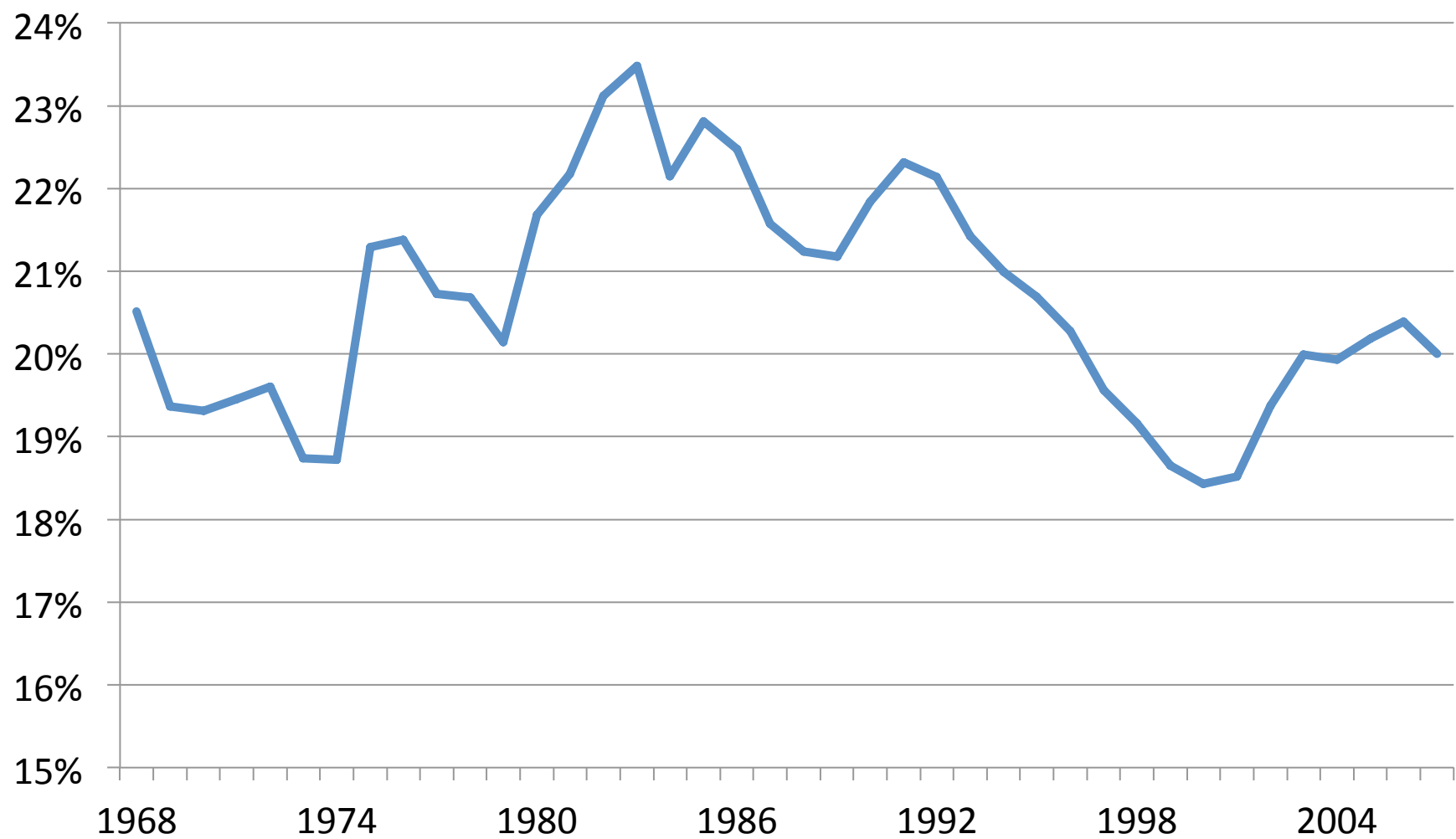
Students who have TVs in their bedroom score lower on academic tests.



Using nominal dollars and omitting economic growth leads to a misleading chart.



US Govt spending as a percentage of GDP has declined since the 1980s.



US Govt spending as a percentage of GDP has declined since the 1980s.

