

Best practices for narrated presentations: Evidence from e-learning research

David Lewis, PhD



Agenda

- “Learning centered” vs “technology-centered”
- Animated demonstration
- Declarative Presentations
- Evidence based strategies

“Learning centered” vs. “Technology-centered”

Learning centered

- Animated demonstration
- Declarative Presentations

Technology centered



- Adobe Captivate
- Camtasia
- Adobe presenter
- Articulate

True Product?



Learning

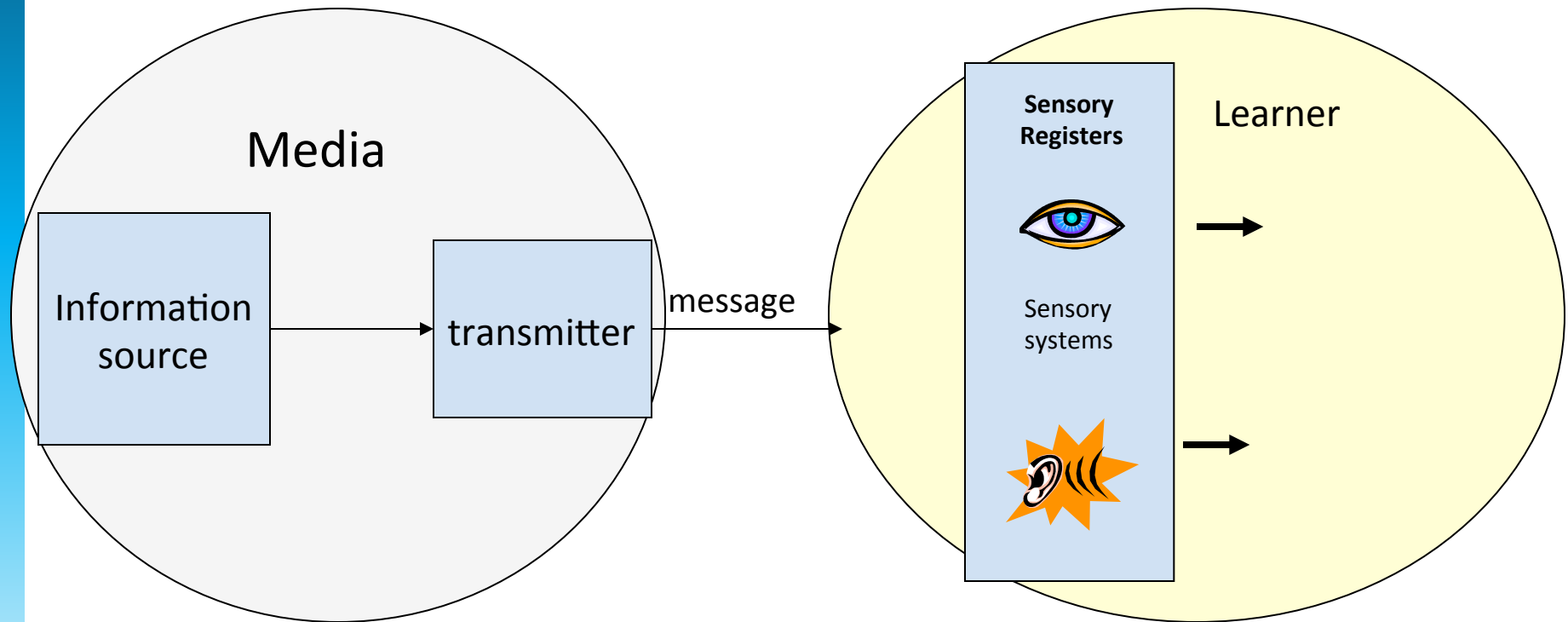
So which is more efficient?



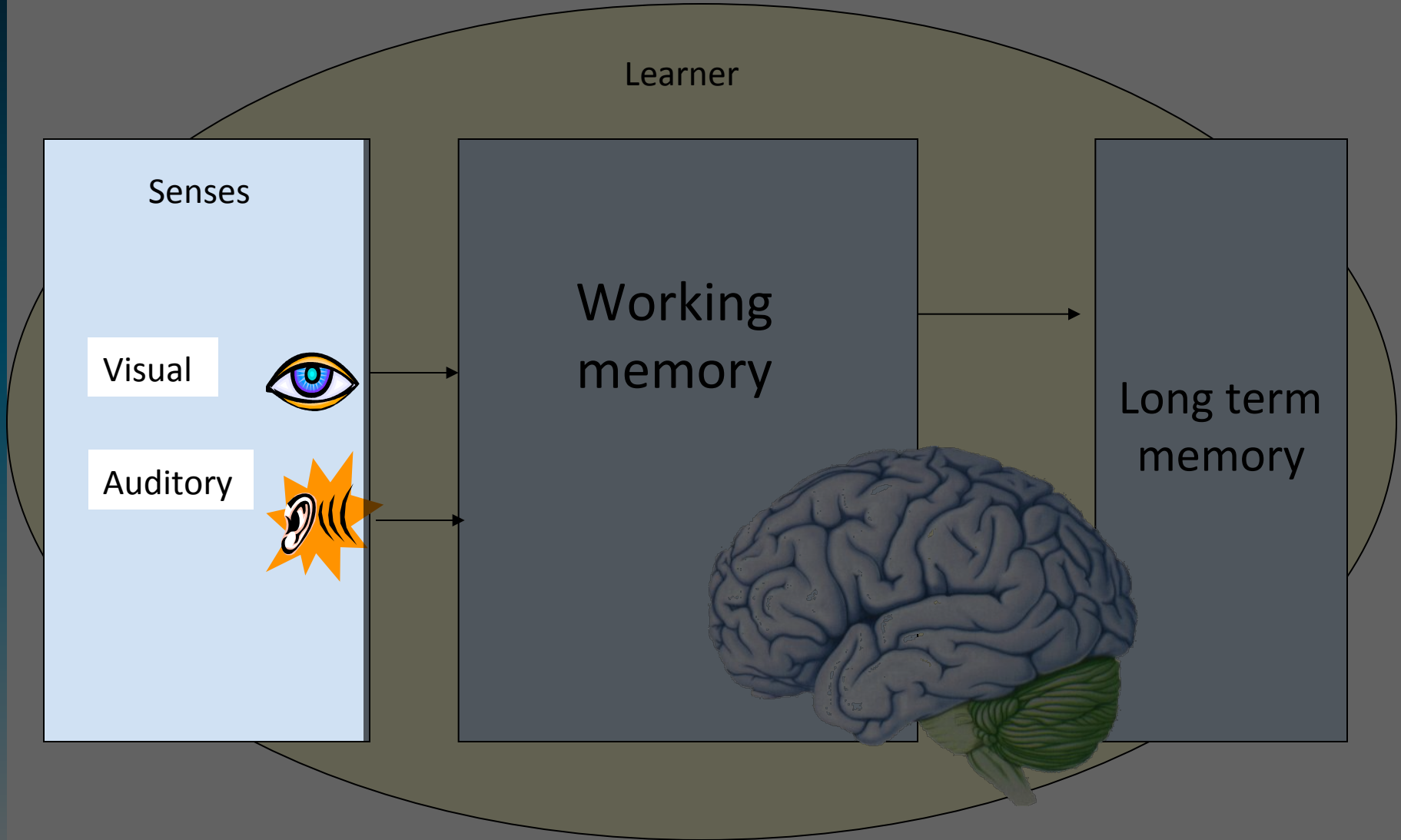
Richard Clark



Communications Theory



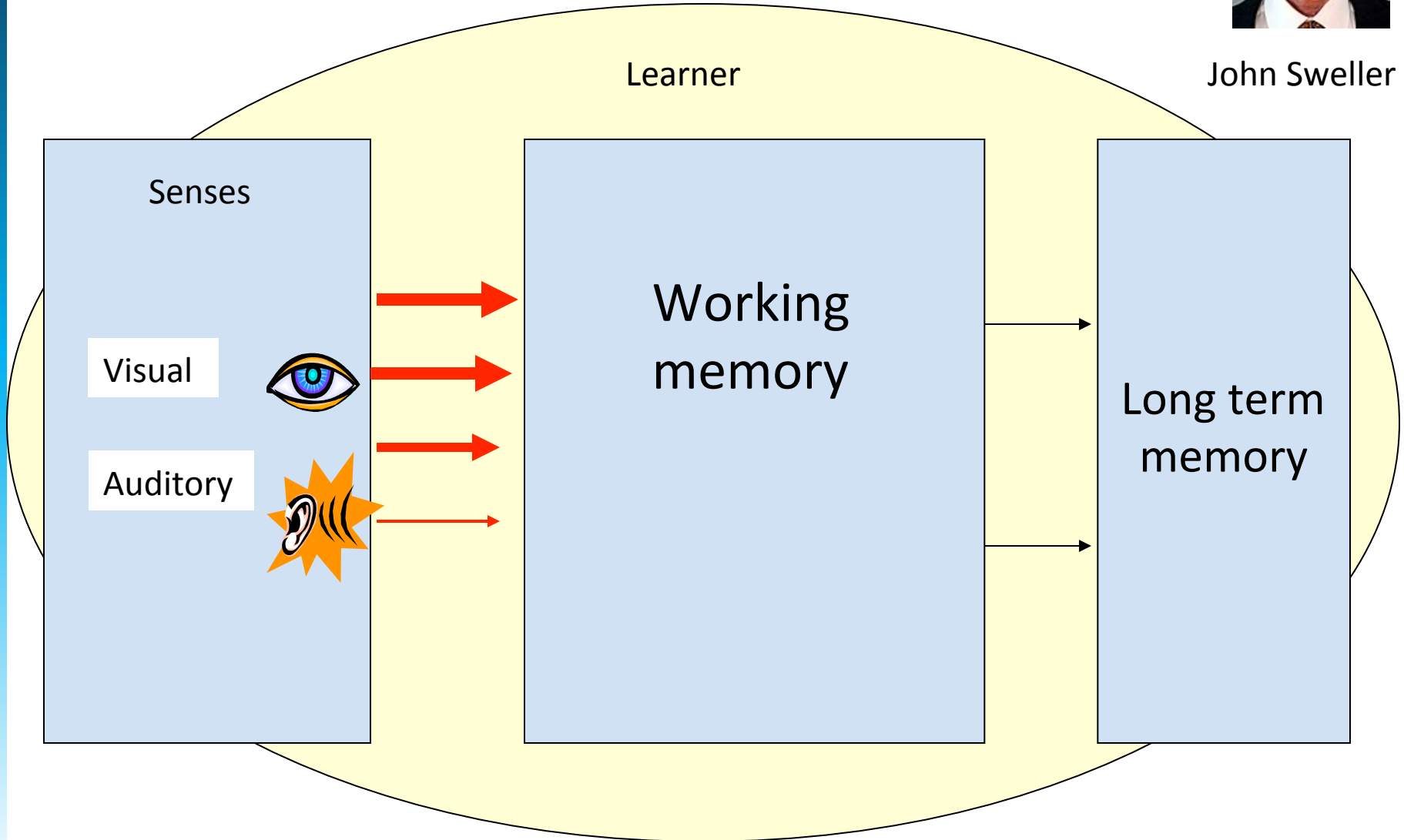
Memory Theory



Cognitive Load Theory



John Sweller

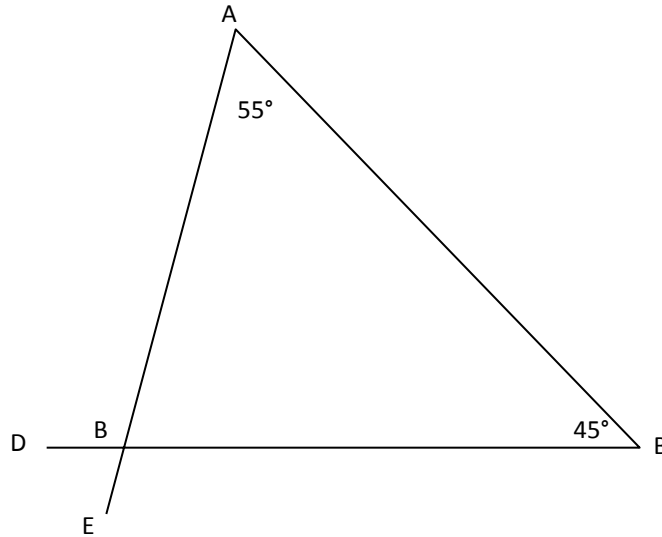


Split attention Effect

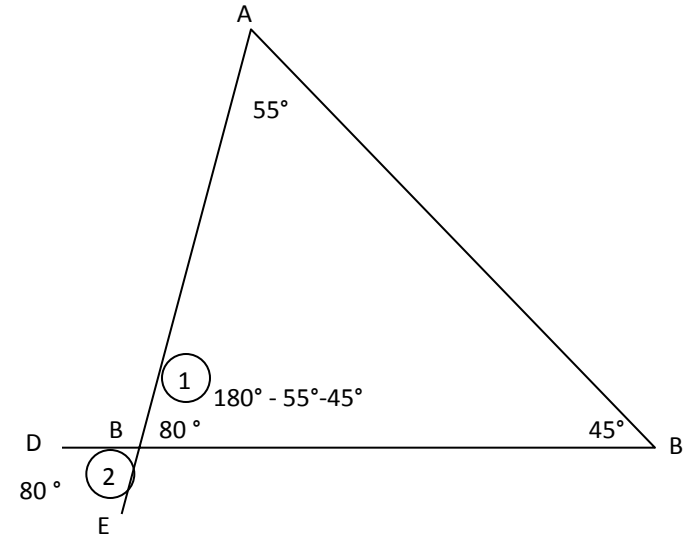


John Sweller

Example demonstrating split attention



Integrated example



In the above figure, find a value for Angle DBE

Solution:

Angle ABC = $180^\circ - \text{Angle BAC} - \text{Angle BCA}$
(internal angles of a triangle sum to 180°)

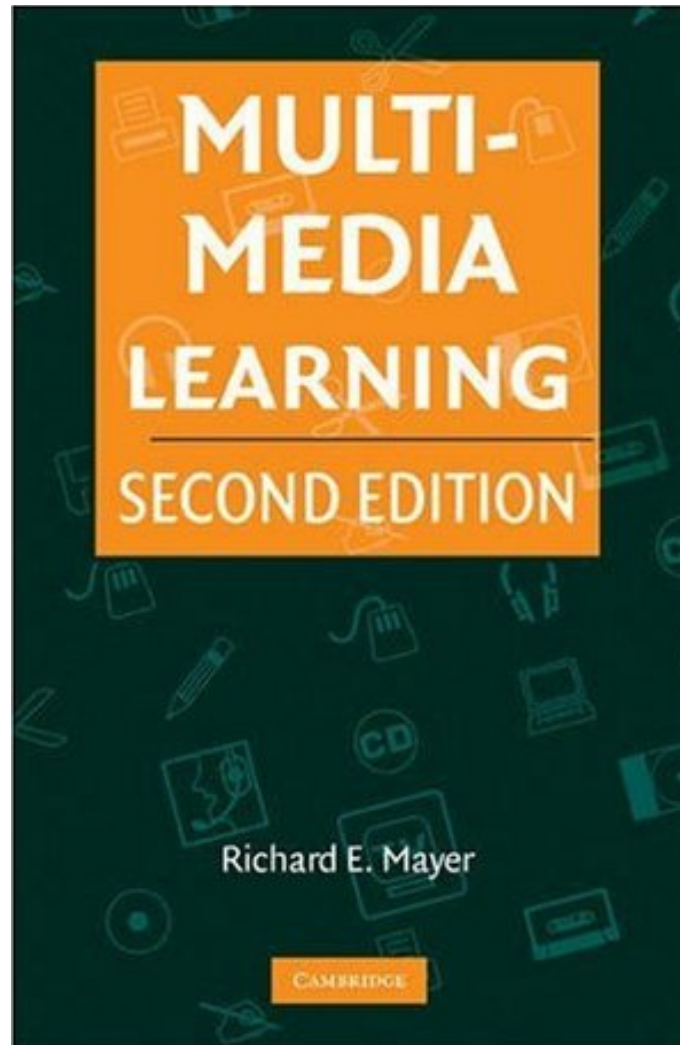
$$= 180^\circ - 55^\circ - 45^\circ$$

$$= 100^\circ$$

Angle DBE = Angle ABC (vertically opposite angles are equal)
 $= 80^\circ$



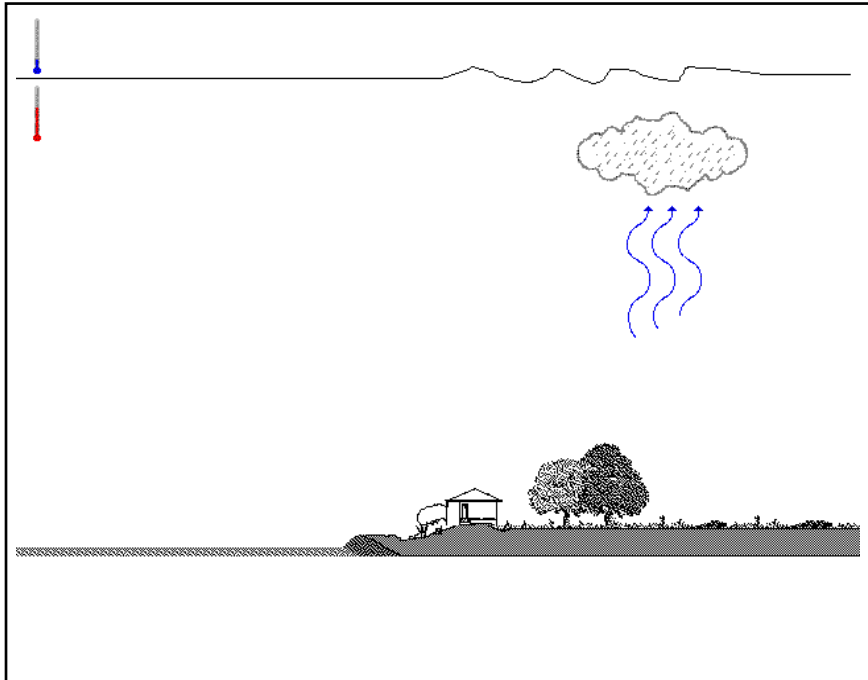
Richard Mayer



Mayer, R E (2008) *Multimedia Learning* (2nd ed.), Cambridge: Cambridge University Press.

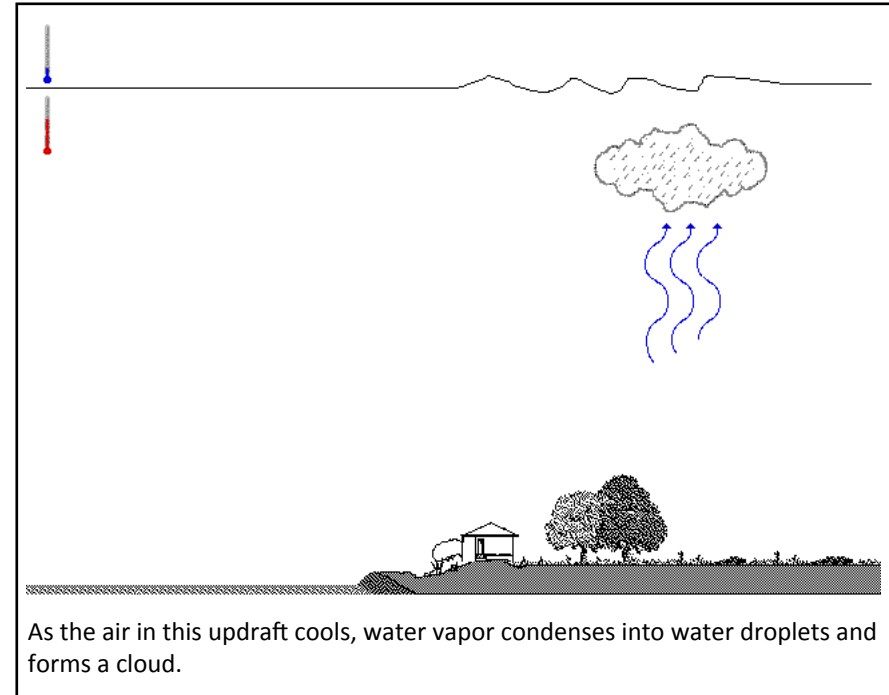
Modality Effect

Words as Narration



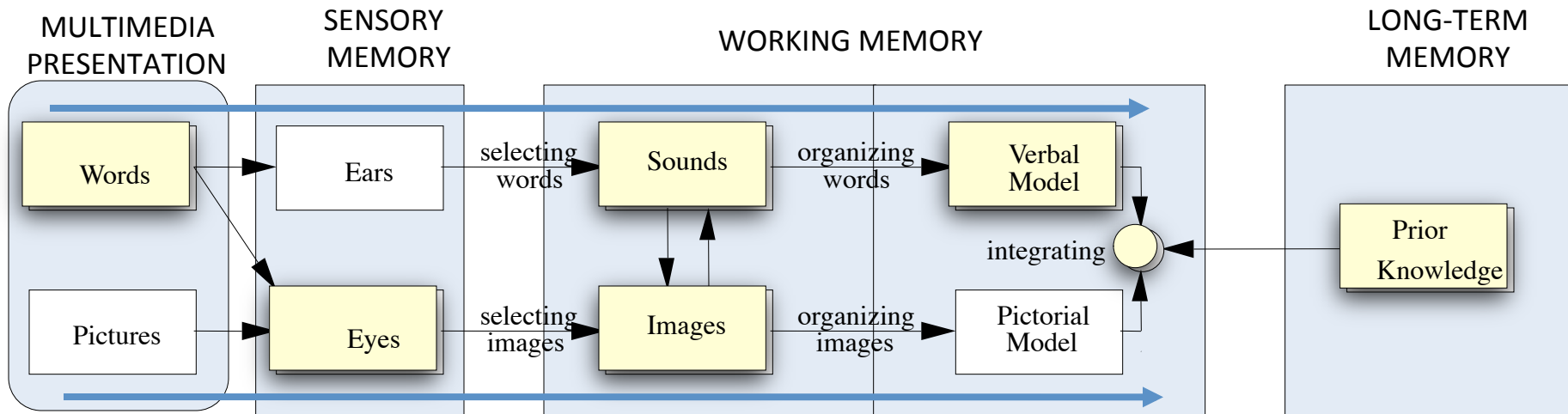
"As the air in this updraft cools, water vapor condenses into water droplets and forms a cloud."

Words as On-Screen Text

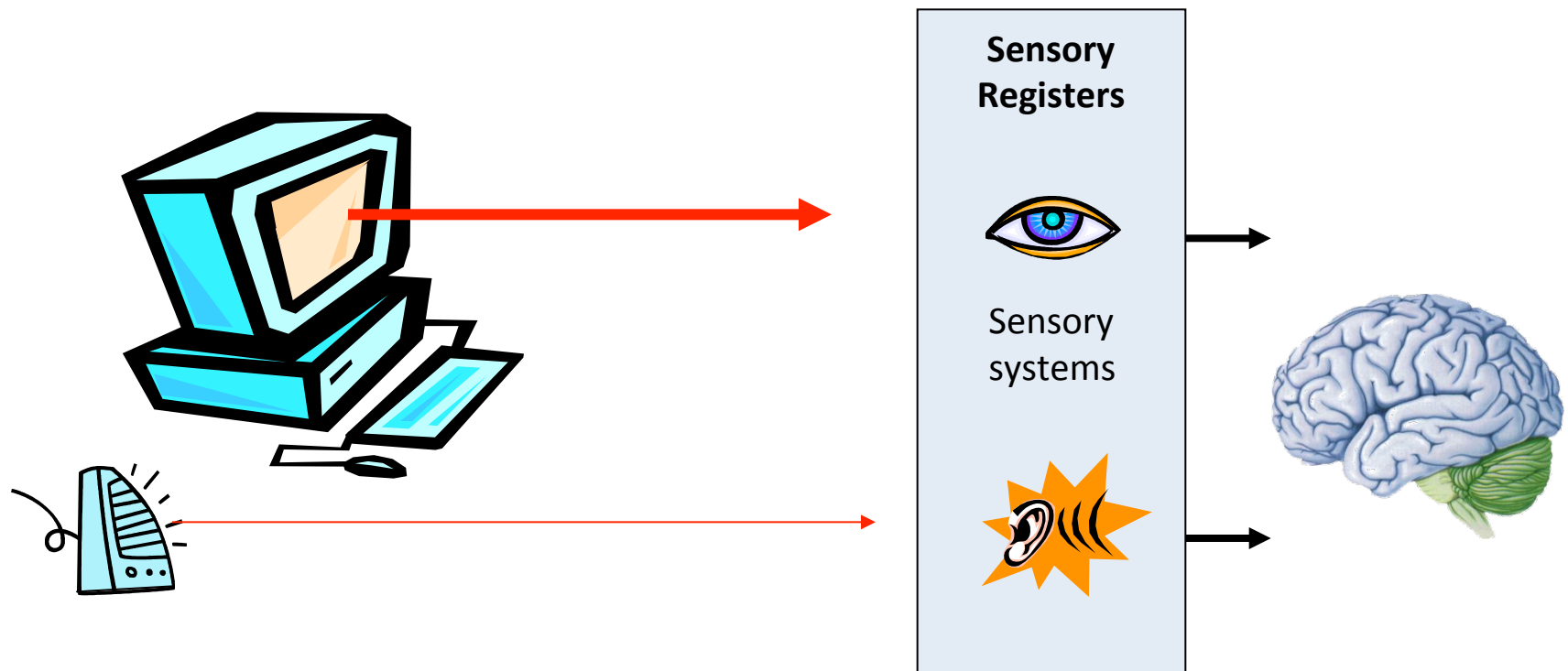


As the air in this updraft cools, water vapor condenses into water droplets and forms a cloud.

Cognitive Theory of Multimedia Learning



Classroom-based instruction is Multimedia

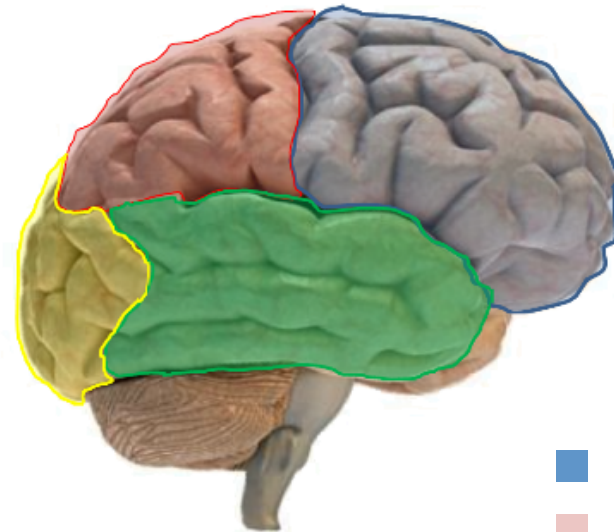
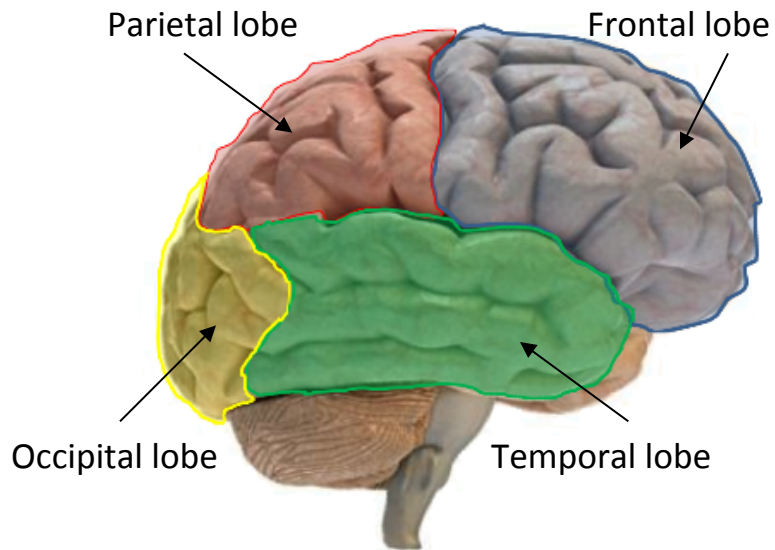


Narrated presentations

- Animated demonstrations – How to (perform)
- Declarative presentation – About (inform)

Strategies for producing “more efficient” Instructional materials

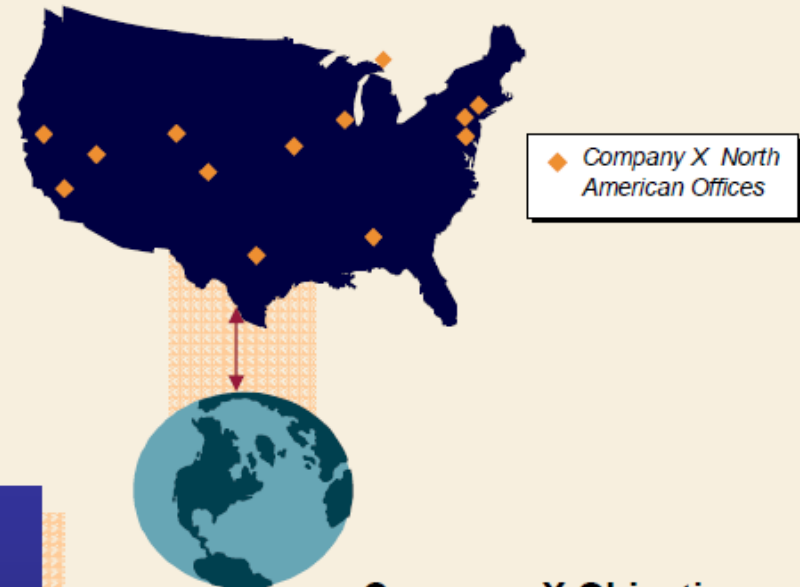
Split attention effect



- Frontal lobe
- Parietal lobe
- Temporal lobe
- Occipital lobe

Company X helps clients implement successful customer relationship management, marketing and risk management initiatives

- World's largest information provider
- \$1.5 billion in annual sales
- 12,000 employees worldwide
- Offering solutions in 50 countries
- 15 North American offices



- Fulfilled 1.2 million online transactions
- Updated 80 million records
- Processed 68.5 million direct mail names
- Shipped over 5.5 million pieces of direct mail

...and that was just today

Company X Objectives

- Deliver solutions to save or make money for our clients
- Focus on cycle time reduction and on-time performance
- Pioneer advances and continuous improvement in information and marketing services technology
- Provide industry-leading capabilities that help our clients build and manage their customer relationships
- Offer global resources and support
- Provide leadership on consumer privacy issues

company X

File

Home

Insert

Design

Transitions

Animations

Slide Show

Review

View

Add-Ins

Articulate



Preview

Preview



None



Appear



Fade



Fly In

Effect
OptionsAdd
Animation

Trigger

Animation Painter

Advanced Animation

Start: Duration: Delay:

Timing

Reorder Animation

Move Earlier

Move Later

Slides

Outline



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Strategies for
Animated demonstrations

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Redundancy Effect

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Strategies for
Animated Explanation

18

[No Title]

19

Knowledge Check Questions

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Narrated presentation

Company X helps clients implement successful customer relationship management, marketing and risk management initiatives

- World's largest information provider
- \$1.5 billion in annual sales
- 12,000 employees worldwide
- Offering solutions in 50 countries
- 15 North American offices



Company X North
American Offices



Company X Objectives

- Deliver solutions to save or make money for our clients
- Focus on cycle time reduction and on-time performance
- Pioneer advanced technology
- Provide industry solutions that help our clients build and manage relationships
- Offer global reach
- Provide leadership in privacy issues

company X

2

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