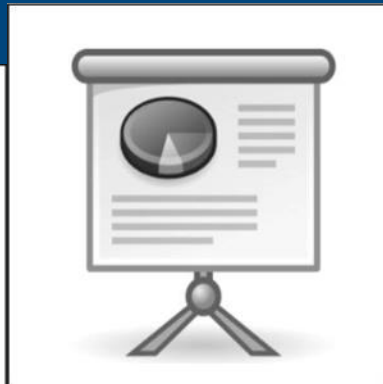
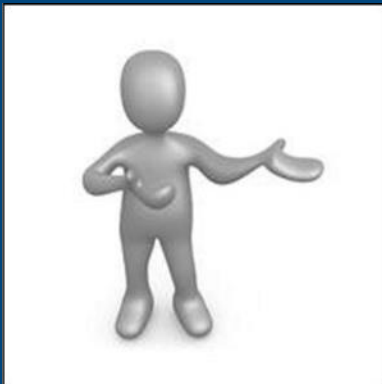


Strategies to Prevent Visual Split-Attention

with Students who are Deaf or Hard of Hearing

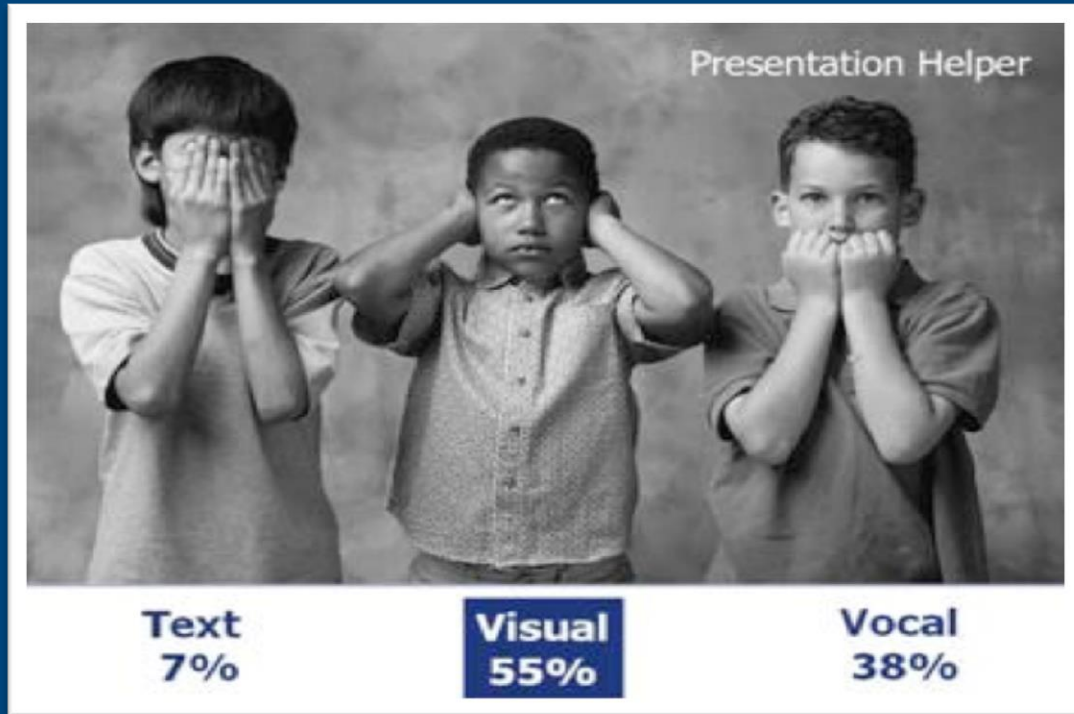


Susan M. Mather, Ph.D
Department of Linguistics
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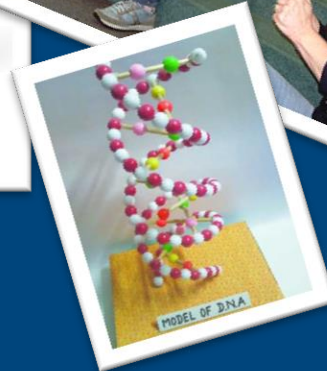
Agenda

1. What is visual split attention?
2. How does visual split attention impact student learning?
3. What are the two visual fields?
4. What are some strategies to reduce visual split attention.

The Importance of Visual Information



Visual Props



What is visual split attention?



ClassInFocus v0.0.1 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///C:/Documents and Settings/Anna/Desktop/ClassInFocus-repo/bin-debug/ClassInFocus.html

slides Instructor Interpreter CC

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Our Target Market

Category	Population
TOP (High Income, Developed Countries)	700M
MOP (Middle Income, Developing Countries)	2.2B
BOP (Low Income, Developing Countries)	1.5B

Socio-economic Pyramid 2005

called a pyramid.

And it's categorized as TOP, MOP, and BOP. Or top of the pyramid, middle of the pyramid, and base of the pyramid.

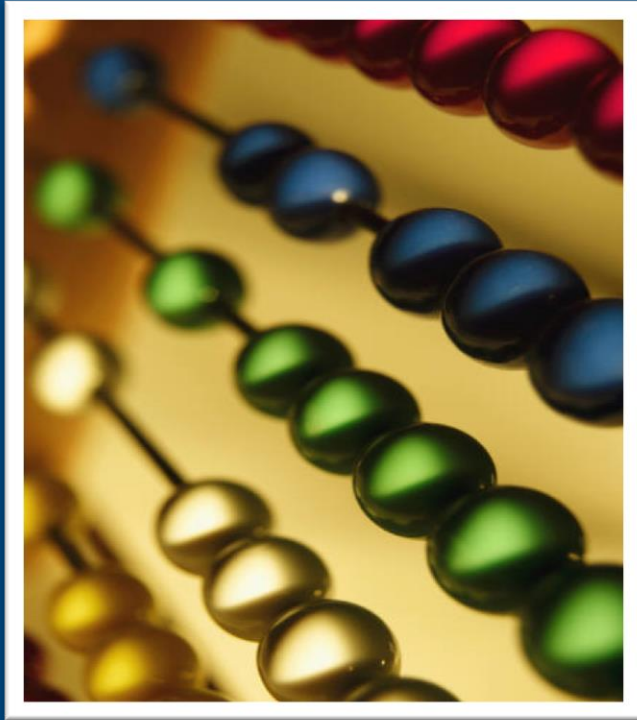
And as you can see, the world's population, about half of it is in the BOP, 2 billion or a little more than that is

Waiting for dthcybercommunity.cs.washington.edu...

How does visual split attention impact student learning?



1. How many strings of beads did you see?
2. What colors were the beads?



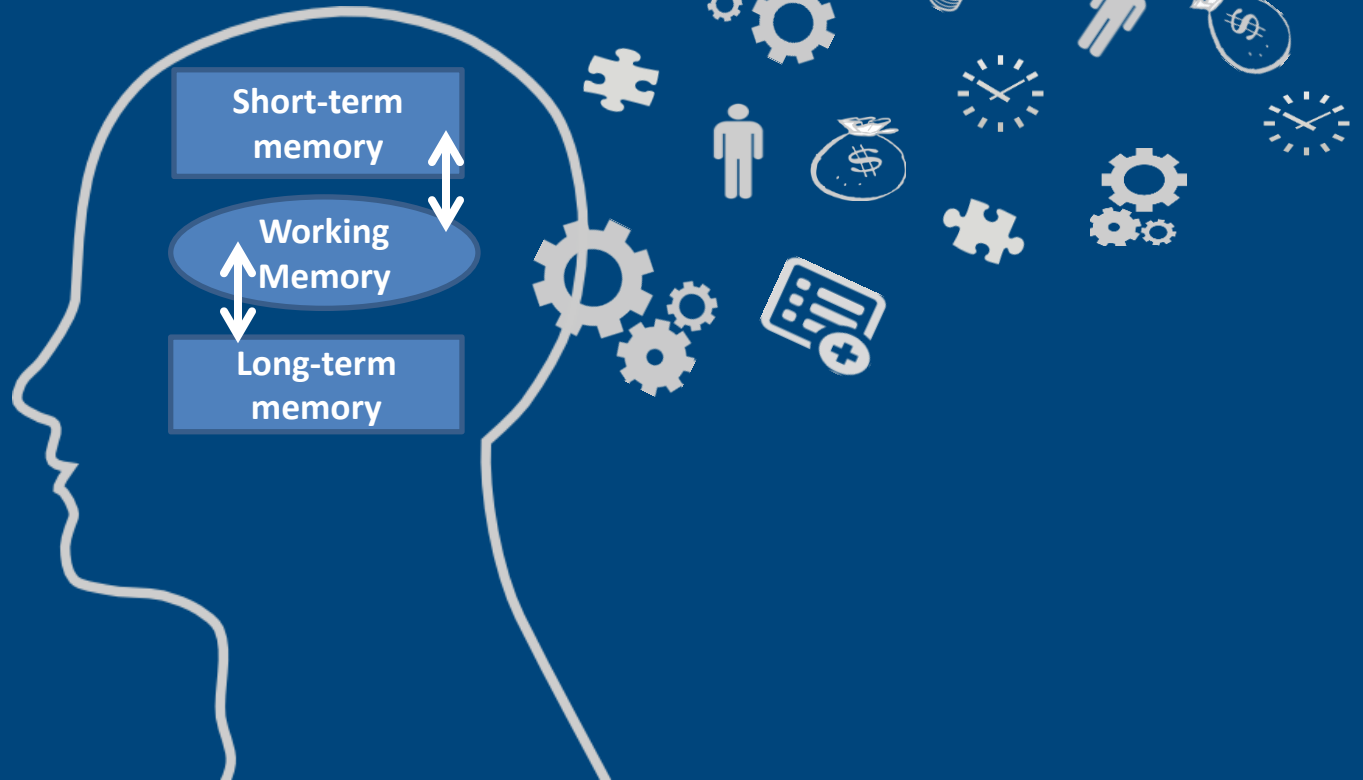
1. How many strings of beads do you see?
2. What colors are the beads?

What is working memory?



Cognitive Overload

Cognitive Overload





Which of these shapes did you see?

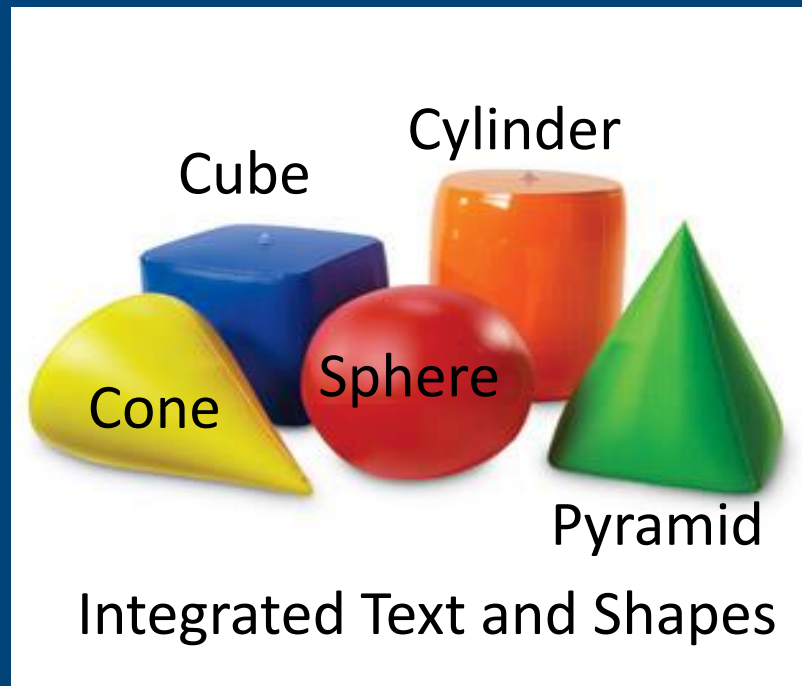
- Pyramid
- Cylinder
- Cone
- Sphere
- Cube

Which of these shapes do you see?



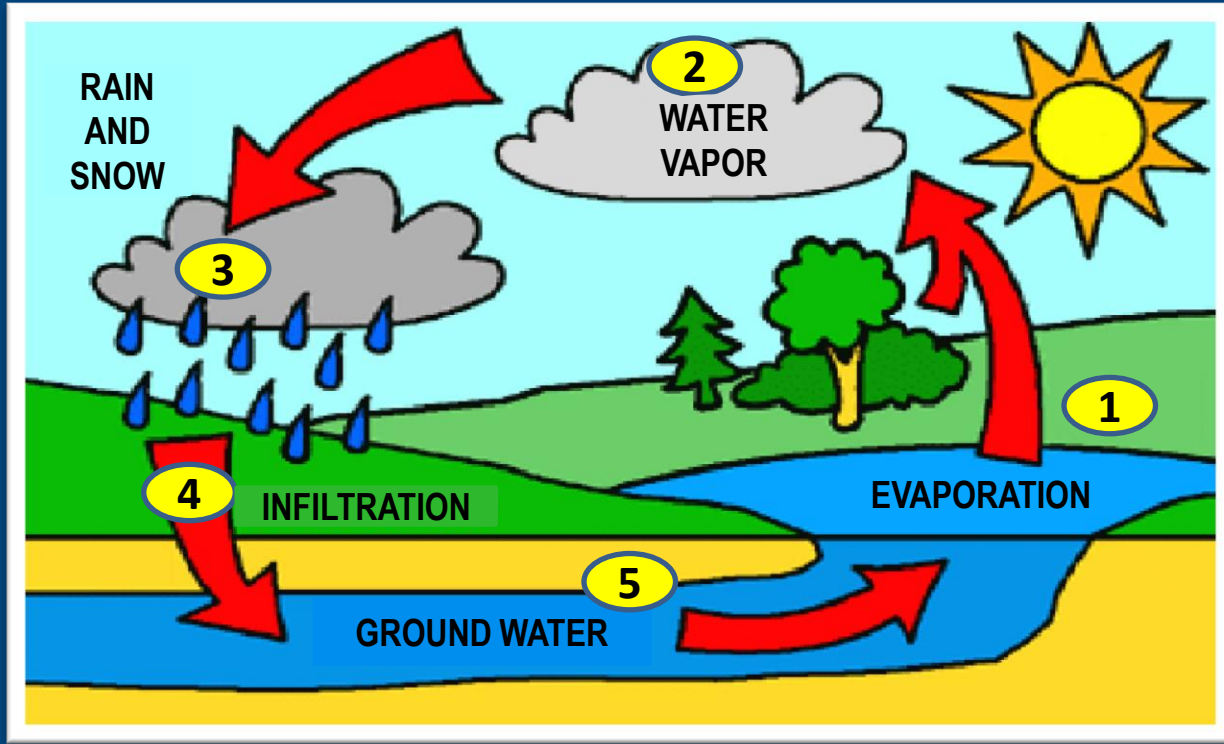
1. Pyramid
2. Cylinder
3. Cone
4. Sphere
5. Cube

Which of these shapes do you see?

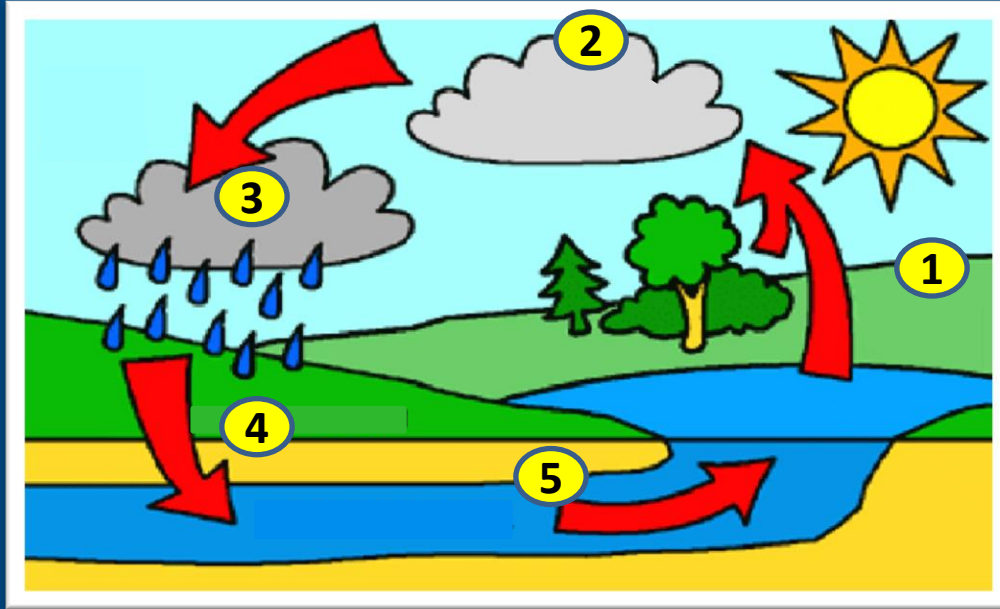


Strategies to Reduce Split Attention

Integrated Text and Visual Prop



Non-integrated Text and Visual Prop



1. Evaporation
2. Water Vapor
3. Rain & Snow
4. Infiltration
5. Ground Water

Name 4 Rivers

Potomac

Rappahannock

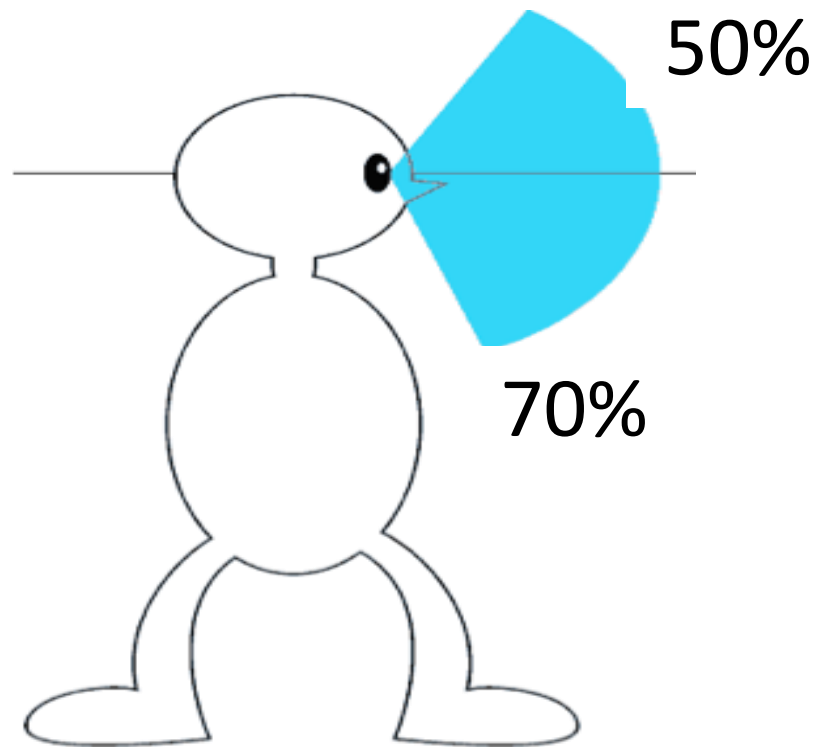
York

James

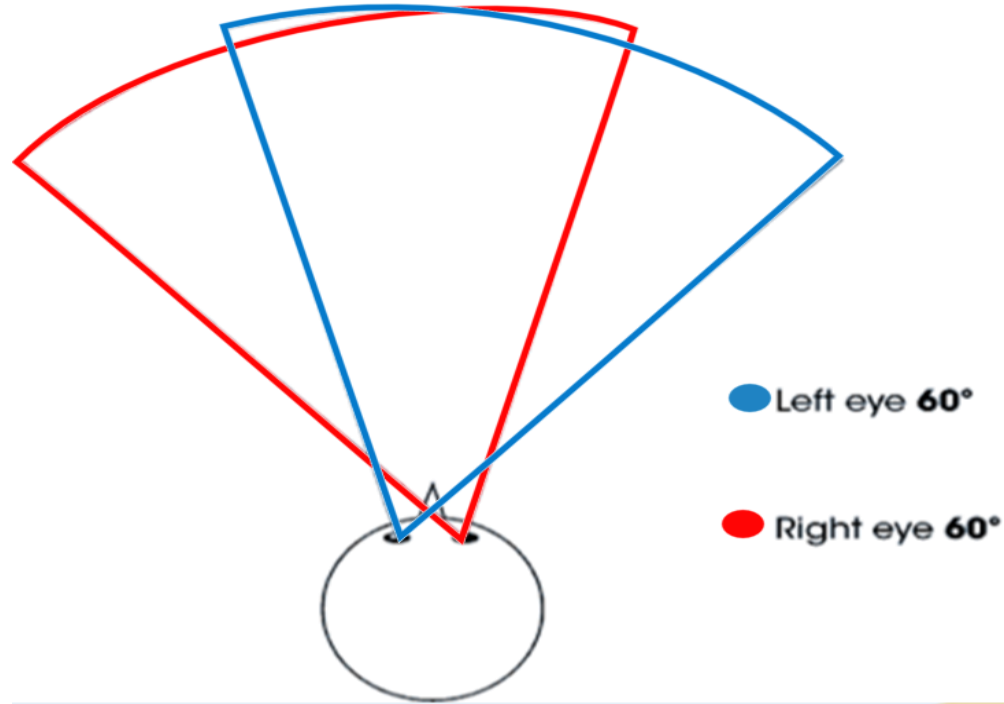


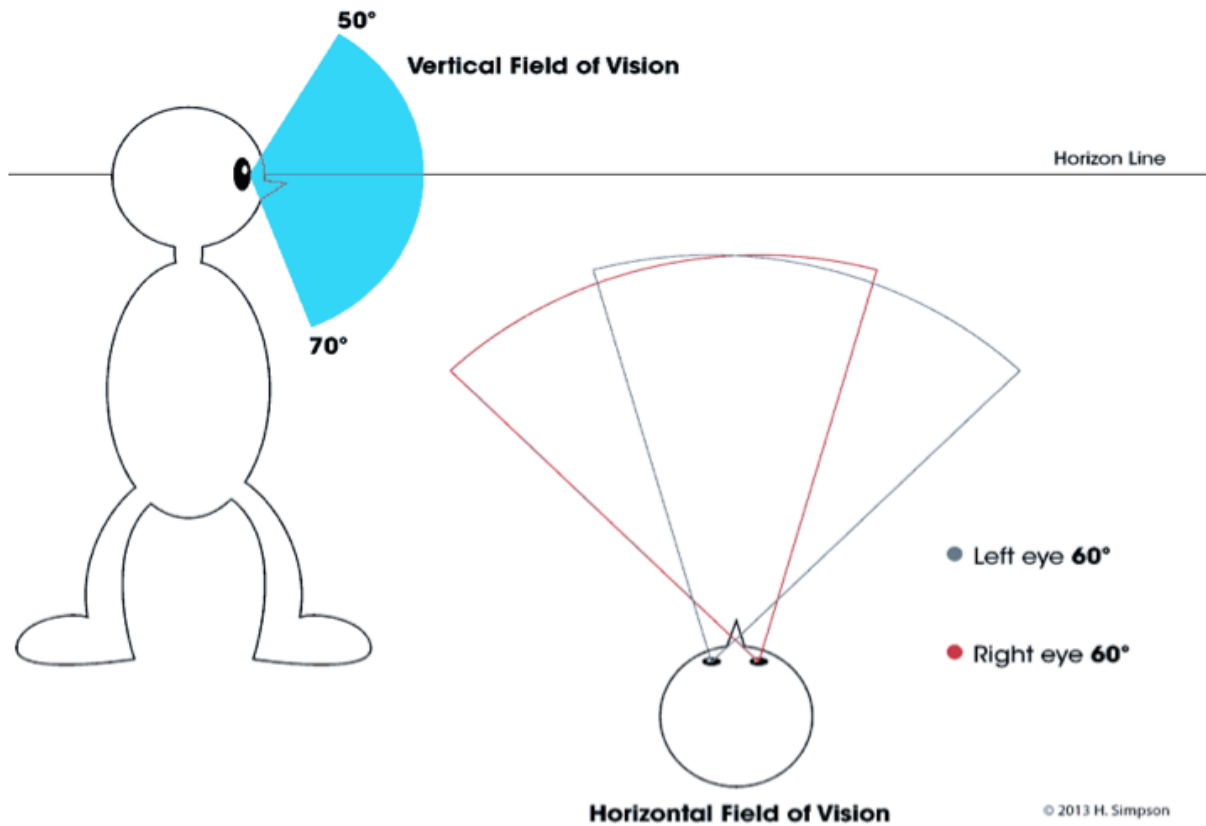
What are the two fields of vision?

Vertical Field of Vision



Horizontal Field of Vision

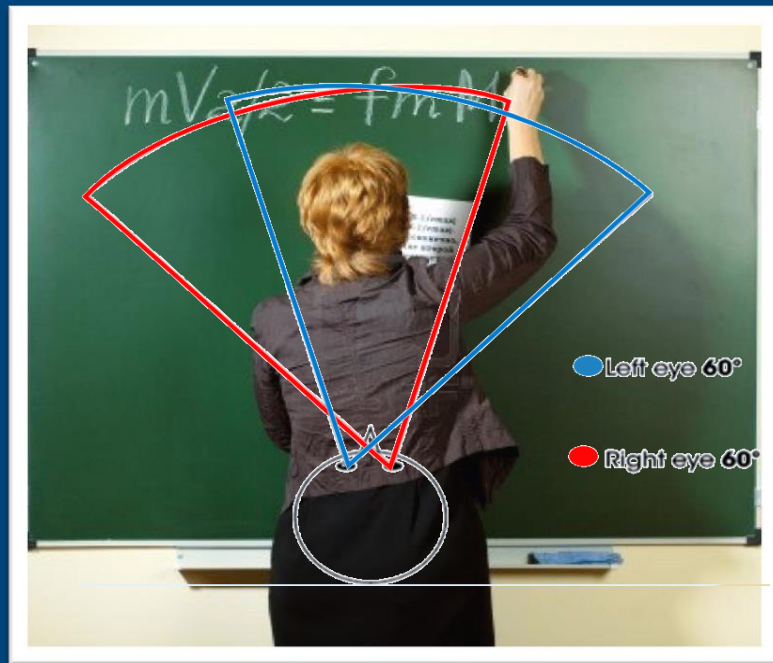
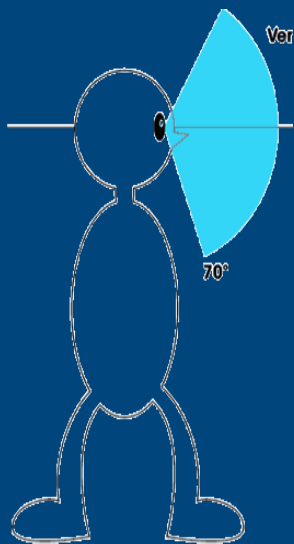






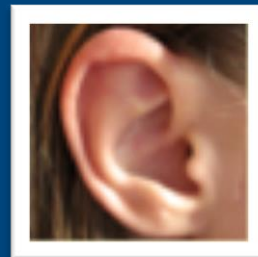
Integrating a math prop with the explanation

Students have access to the math prop and the explanation.

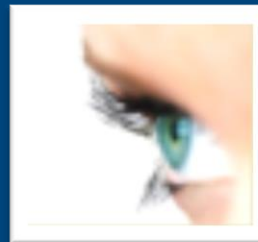


The Two Types of Dual Access

**“Eye-Looking & Ear-Listening ”
(Visual and Auditory Access)**



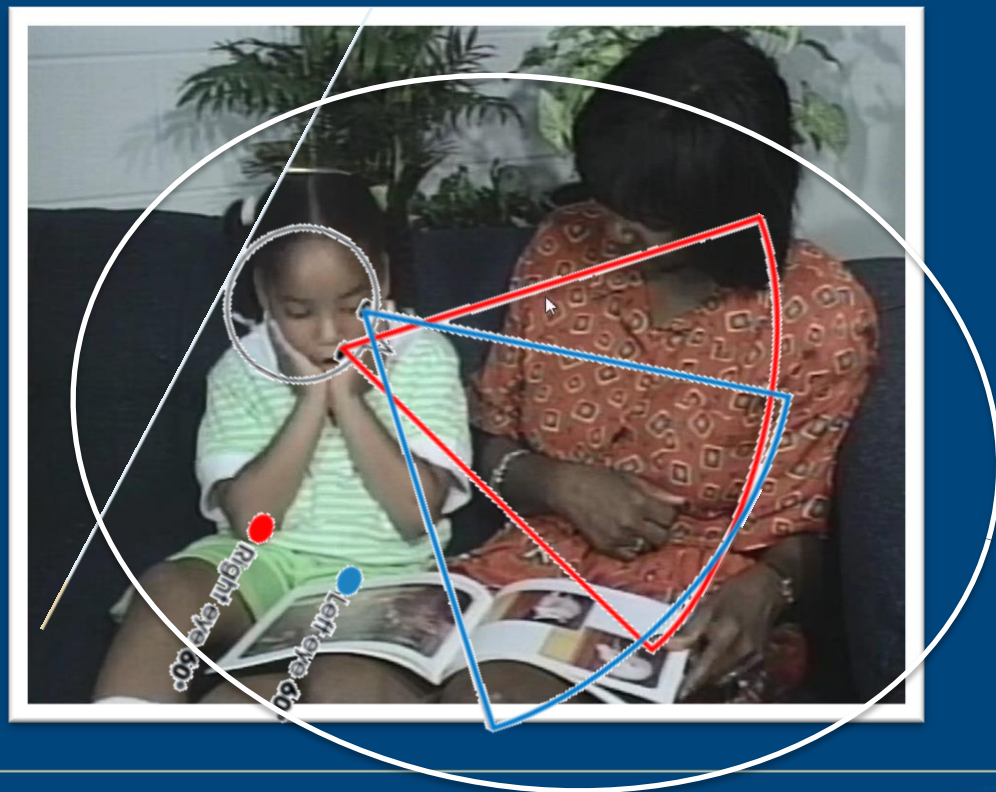
**“Eye-looking and Eye-Listening”
(Double-Visual Access)**



Dual-Vision Access

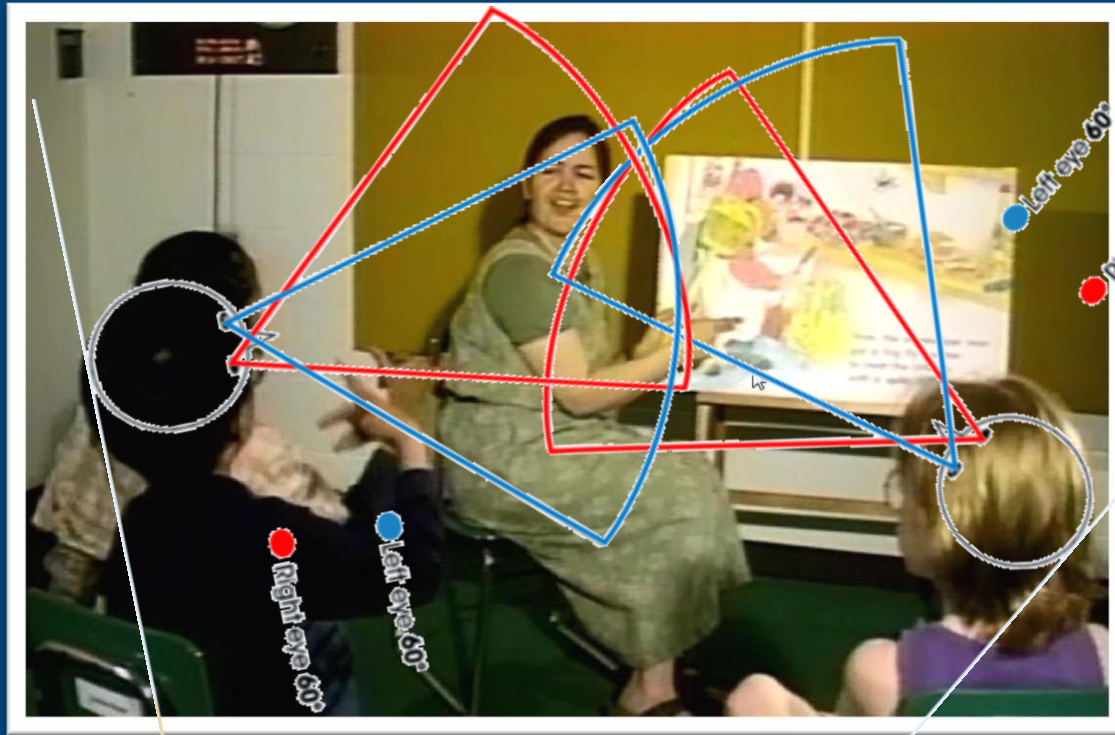


Dual-Vision Access

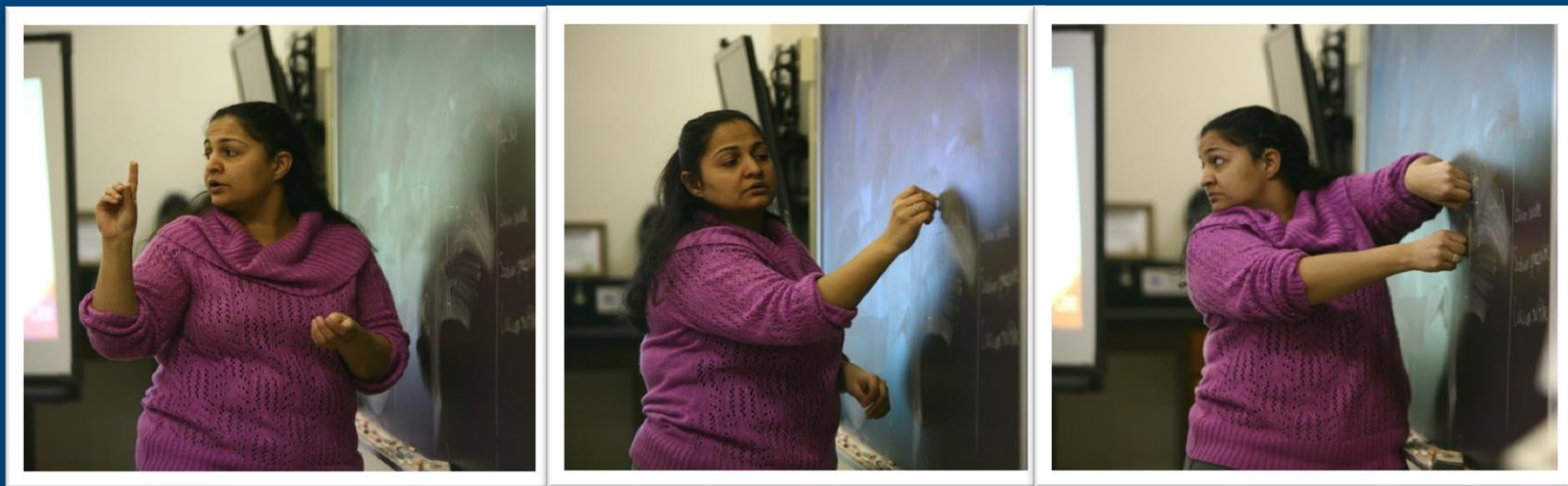


Dual-Vision Access





Each student has dual vision access



Each student should have dual vision access to the teacher's signed explanation and the prop.

How do you integrate the signed explanation with a visual prop?

Integrated math instruction: integrate vertical or horizontal signing with the equation

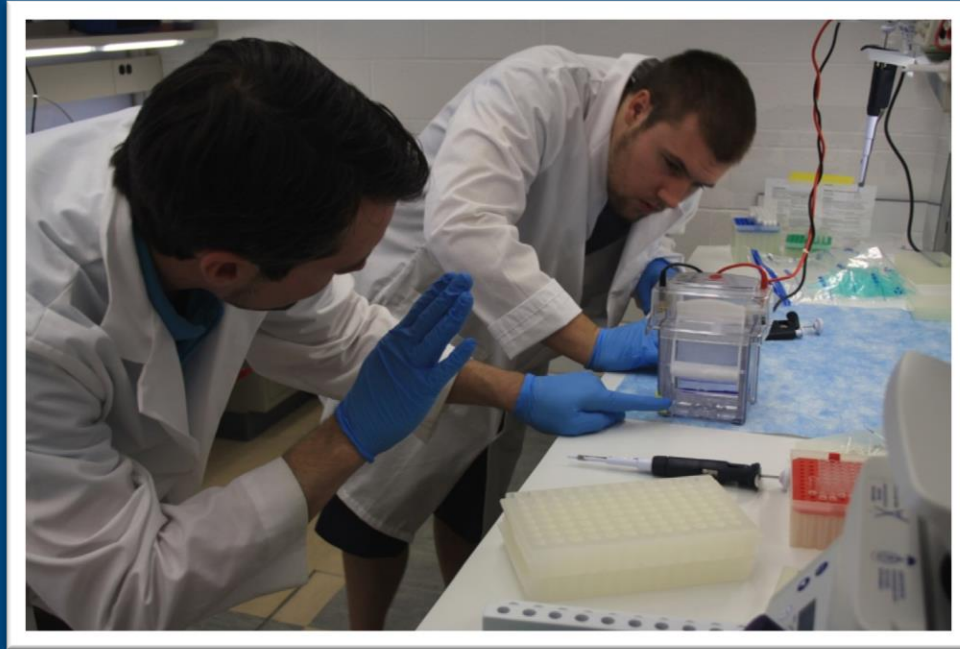
$$\begin{array}{r} 4 \\ + 4 \\ \hline 8 \end{array}$$

$$4 + 4 = 8$$

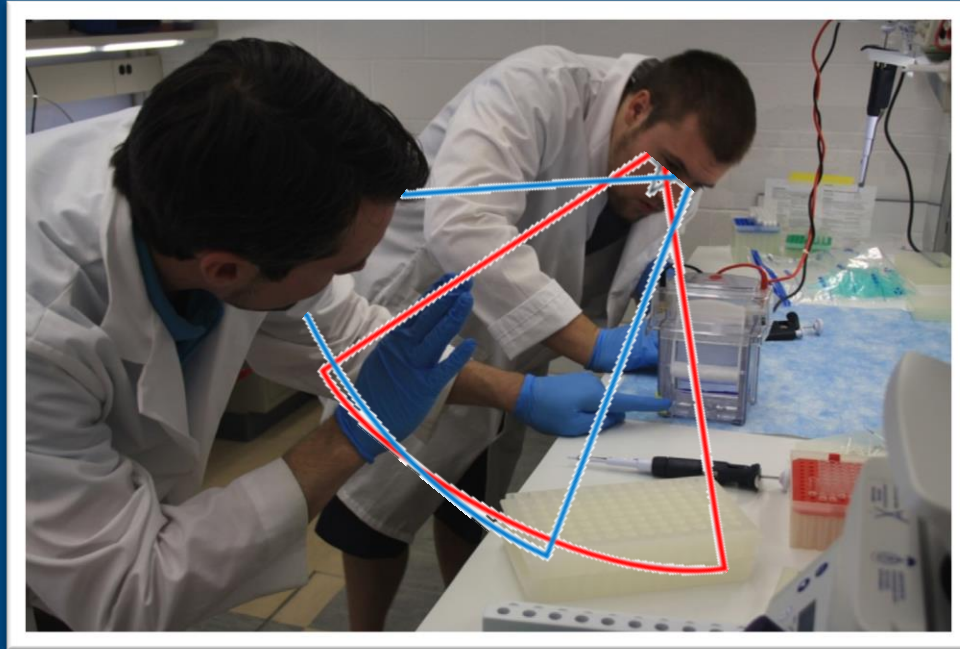
Signs and props are at eye level



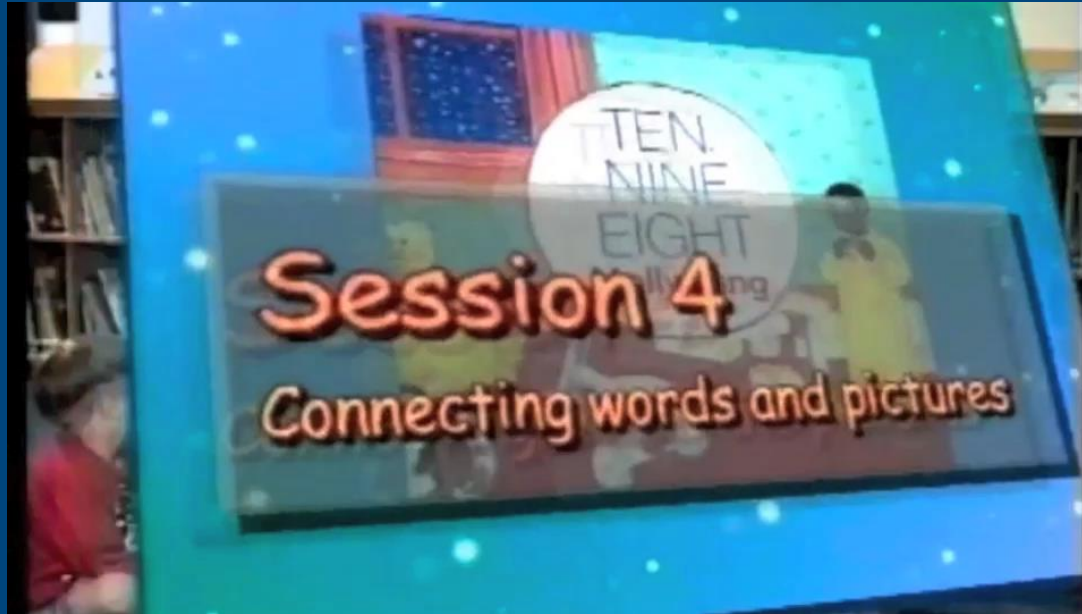
Integrated Eye-level Signing with Visual Props



Student's Dual-Vision Access



“How many shoes can you count?”



Integrated eye-level sign with shoe prop



Integrated eye-level sign “counting” with number props



Dual vision access or split attention?



Tips for Reducing Split attention

1. Evaluate each student's vertical and horizontal field of vision.
2. Determine each student's dual vision access to the signed explanation and the prop.
3. Make sure to integrate both the eye-level signed explanation and prop.

Points to Remember

1. Split attention overloads working memory
2. Integrate teacher with relevant prop(s)
3. Make sure EVERY student in the class can see both the signed explanation and the prop(s)

Contact information

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