



WPI

Optimization of the Glacier National Park OSHA Training Program

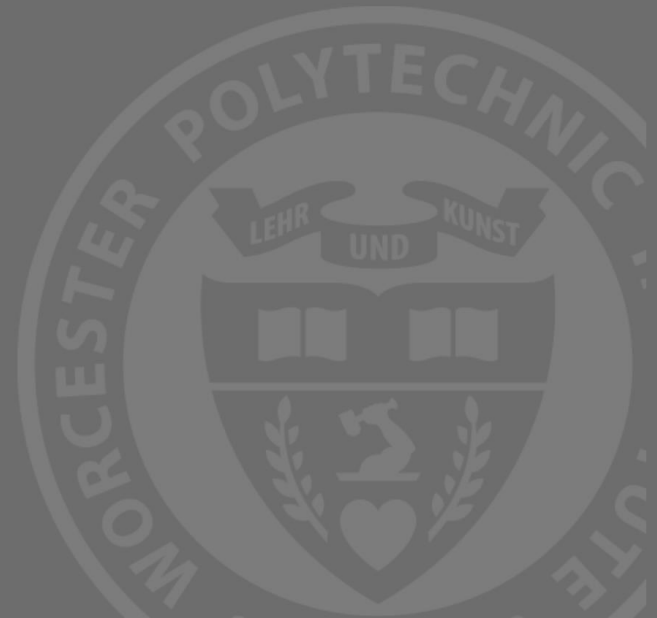
L. Benjamin, R. Carter, L. Masse, N. Meyer, E. Andreassen

The OSHA Safety Training Video

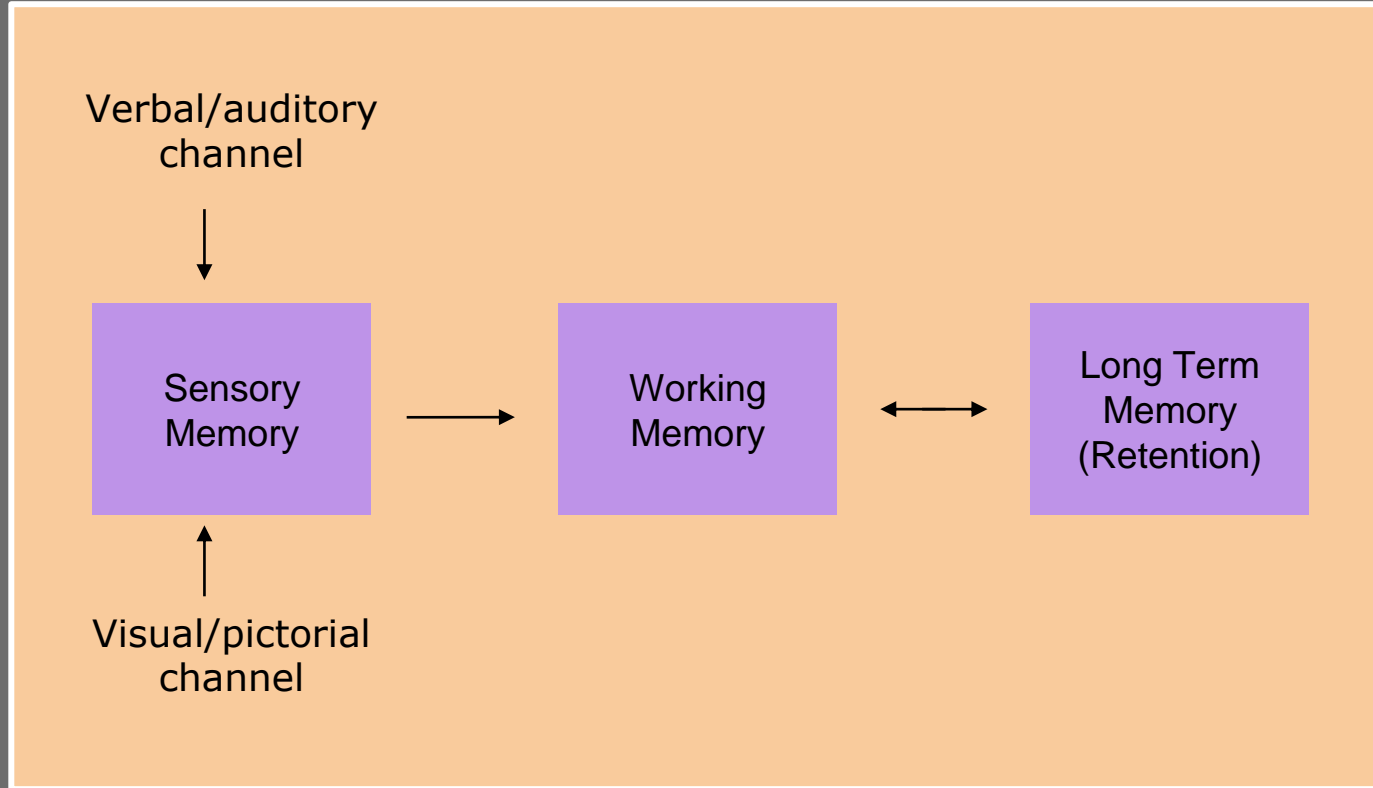


Goal

Optimize and improve the OSHA training program and provide informed recommendations for the improvement of all presentation material.



Cognitive Load Theory

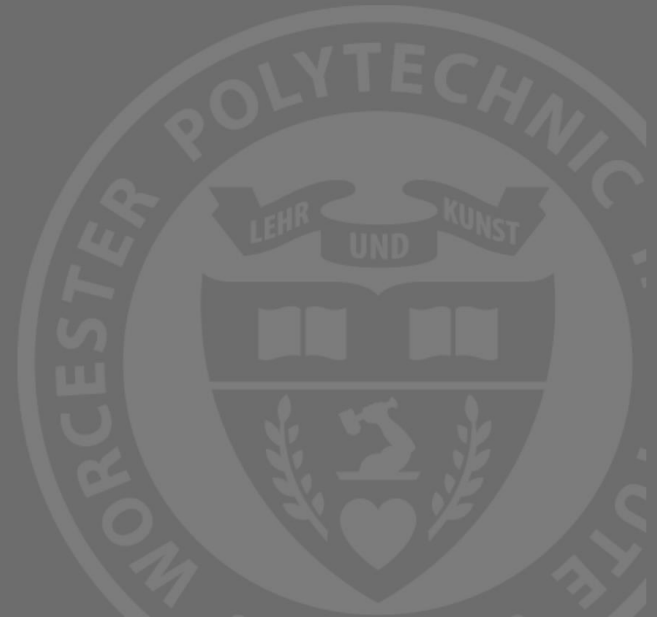


Techniques For Optimizing Cognitive Load

- Weeding
- Signaling
- Segmenting
- Matching Modality



Weeding



Unbroken skin forms an impervious barrier against bloodborne pathogens. Infected blood can enter your system through:

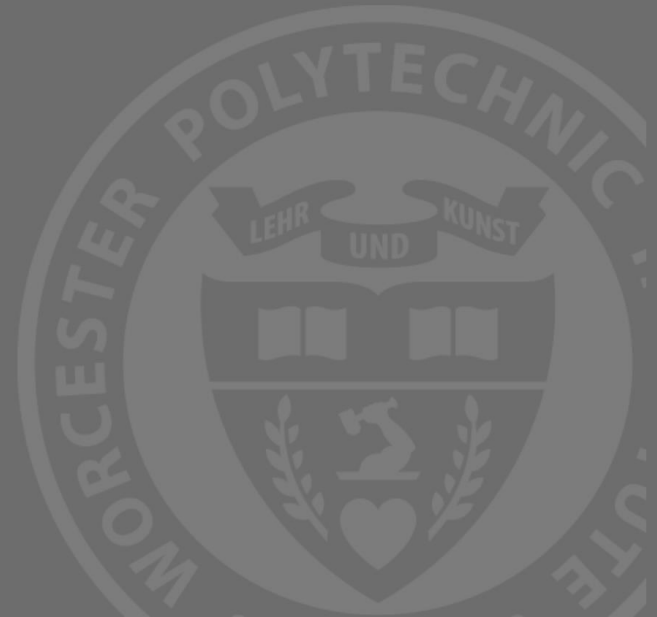
- Open sores
- Cuts
- Abrasions
- Acne
- Any sort of damaged or broken skins such as sunburn or blisters

Bloodborne Pathogens may also be transmitted through the mucous membranes of the:

- Eyes
- Nose
- Mouth

Example: a splash of contaminated blood to your eyes, nose, or mouth could result in transmission.











Signaling



Signaling With Color

Safety's Five Hazardous Attitudes

<u>Attitude</u>	<u>Perspective</u>	<u>Alternate Perspective</u>
1. Antiauthority	"Don't tell me..."	"Standards and policy are in place to help me go home today as healthy as when I showed up".
2. Impulsivity	"I got to get this done..."	"Wait, I need to stop and think for a moment".
3. Invulnerability	"It won't happen to me."	"This could be a problem if I'm not careful".
4. Macho	"I got this..."	"I'm not going to chance it".
5. Resignation	"What's the use?"	"I need to take control of this situation".

Safety's Five Hazardous Attitudes		
Attitude	Perspective	Alternate Perspective
Antiauthority	 "Don't tell me..."	 "Standards and policy are in place to keep me safe"
Impulsivity	 "I got to get this done..."	 "I need to stop and think for a moment"
Invulnerability	 "It won't happen to me"	 "This could be a problem if I'm not careful"
Macho	 "I got this..."	 "I'm not going to chance it"
Resignation	 "What's the use?"	 "I need to take control of this situation"



Segmenting



Applying Segmenting

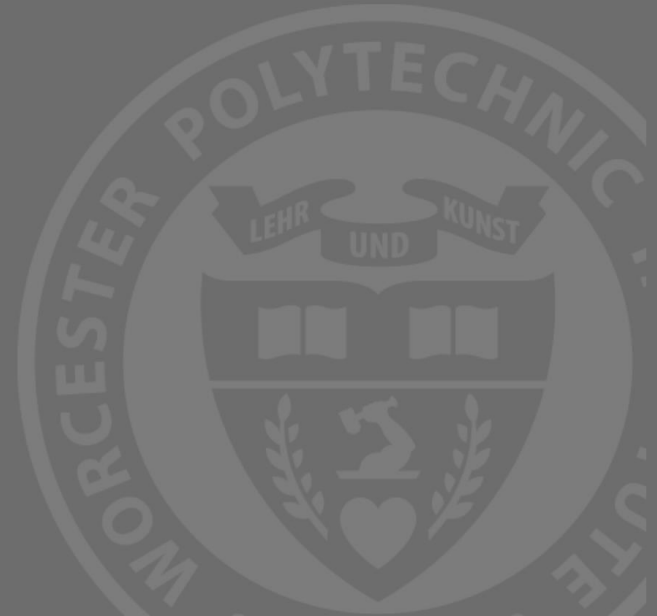
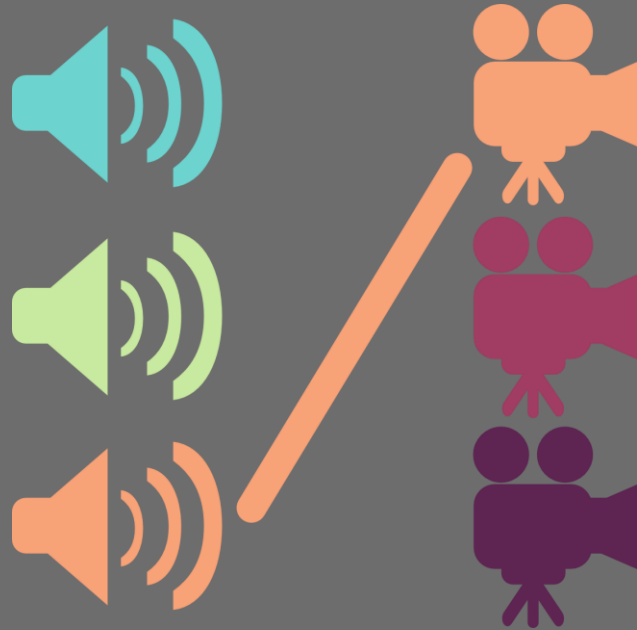
- **Opportunities:**
 - COVID-19
 - Bloodborne pathogens
 - Rabies
- *Clear distinctions, time breaks*
- **NOTE: Video medium makes this easier**

18:45



Worcester Polytechnic Institute

Matching Modality



Supervisor



- Safeguard human life as highest priority.
- Exercise the principles of Operational Leadership (OL).
- Train and inform staff how to do the job safely (OL).
- Utilize Job Hazard Analysis (JHAs) before starting work.
- Provide Personal Protective Equipment (PPE).
- Empower staff to speak up if they observe a task or operation that has unnecessary risk, they have not received proper training or equipment is not adequate.
- Praise staff when they do speak up and contribute to the safety of operations.
- Stop work if risk cannot be properly mitigated.

Future Recommendations



Future Recommendations

- Improve production value



From <https://kdenlive.org/en/>



From <https://www.bluemic.com/>

Snowball iCE USB Mic

Future Recommendations

- Improve production value
- Adjust presentation voice



Future Recommendations

- Improve production value
- Adjust presentation voice
- Improve interactivity



Future Recommendations

- Improve production value
- Adjust presentation voice
- Improve interactivity
- Utilize improved infographics



Special Thanks to:

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Diane Sine

Scott Allen



<https://www.worldwildlife.org/blogs/good-nature-travel/posts/the-wildlife-of-glacier-national-park>

Questions?

