



VISUAL LITERACY: LEARNING TO SEE HAZARDS IN THE WORKPLACE

How much do we actually “see” when we look at something? How well can we describe what we see to another person? The ability to “read” and communicate visual information is what the Toledo Museum of Art (TMA) calls, “visual literacy.” While the concept of visual literacy has been around for decades and has been used to improve classroom learning, the Campbell Institute and TMA have a new twist: being more “visually literate” can help workers better identify occupational hazards, which can make them safer in the workplace. Visual literacy can help during every step of an incident:

- It can help in the hazard identification stage to aid in preventing incidents from occurring, or could turn a potential incident into a near miss
- If an incident does occur, it can assist in the initial incident report written by a person at the scene, when the level of detail and description is crucial
- During the investigation process, it can be helpful in gathering evidence from the scene and/or witnesses
- As corrective actions are applied, it can prove useful in both verifying and auditing their effectiveness
- Finally, it's a great tool for on-going learning by helping workers understand how to better visually read their environments

Take the example of an incident that occurs as the result of a routine task – something a worker has done hundreds or even thousands of times. Because the brain might not be actively “reading” the situation after becoming so accustomed to the task, a worker might miss something. This is not about blame – it's simply human nature.

Becoming more visually literate and being better able to observe, see, and interpret our environment depends on becoming aware of our visual biases. TMA describes visual biases in three ways:

- Sometimes you cannot see what is in front of you, even if you know it is there.
- Once you see something, it is impossible to “un-see” it.
- You are always filling in the blanks based on what you expect to be there.

For example, take the following image. Can you see it? By the nature of this question, you know that there is something there to see, but what is that supposed to be?



When the color of the image is changed, it becomes clear what you are supposed to see:



Looking back at the first black and white image, you can still see the panther in the foreground, even when you didn't see it previously. Once you see something, it is hard to remember what it was like not to see it.

The Campbell Institute, in partnership with the Toledo Museum of Art, has started a multi-year research project to study the effects of visual literacy training on increasing hazard awareness and recognition in the workplace. The Institute has enlisted the participation of four Institute members – AES, Cummins, Owens Corning, and USG. Directors of TMA will design and deliver the visual literacy training; researchers at the Campbell Institute will determine the effectiveness and outcomes of the training.

In sum, the Campbell Institute and TMA hope to show the beneficial effect of visual literacy training on hazard recognition skills, and in general, to create a connection between the fields of art education and occupational safety and health. For more background on this research project, download the introductory white paper report, “Visual Literacy: How ‘Learning to See’ Benefits Occupational Safety” from the Campbell Institute website: www.thecampbellinstitute.org/research.

