



Center of Visual Expertise



CUMMINS CASE STUDY

Improving Hazard Identification

SITUATION

Cummins wanted to improve their hazard recognition capabilities. Visual Literacy principles were added to their risk assessment training in order to help make sure they were seeing all of the possible hazards.

SOLUTION

Cummins took the concepts of Visual Literacy back to their site and began identifying hazards using the “elements of art” concept (line, shape, color, texture, space). They immediately identified areas that needed fixes and worked to put new measures in place.

INITIAL RESULTS

Employees who have received the visual literacy training have identified new types of hazards by using the elements and process of visual literacy, which has led to improvements and fixes in their work environments. As of the end of March 2018, 225 employees had been trained plant-wide. They identified 132 issues using the elements of visual literacy and submitted and corrected 25 hazards through the company “Find It Fix It” hazard recognition and correction initiative.



ABOUT CUMMINS

Designs, manufactures and distributes diesel and natural gas engines and generator sets as well as hybrid and electric platforms and related technologies.



Founded in Colubus, Indiana, in 1919



58,600 employees worldwide

ELEMENTS OF ART USED TO IDENTIFY HAZARDS

The majority of the hazards identified so far (Figure 1) are through the visual literacy elements of Line and Shape. This is followed by the elements of Texture, Space, Shape, and then a combination of elements (labeled as “Variety”).

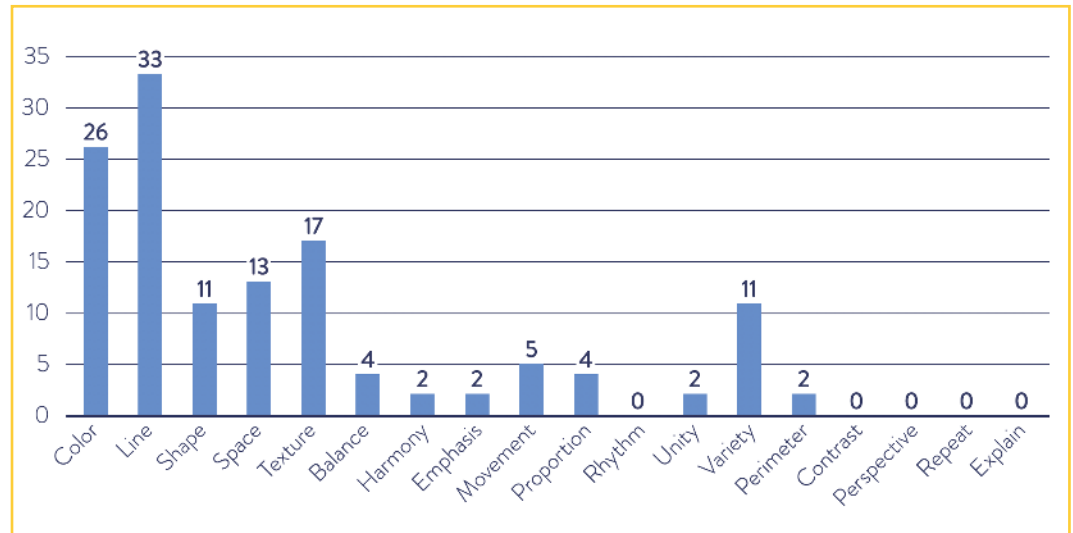


FIGURE 01

VISUAL LITERACY ELEMENTS USED TO IDENTIFY HAZARDS AT CUMMINS MANUFACTURING SITE, AS OF MARCH 2017



PROPORTION



Documented in photographs are some of the hazards identified using the elements of visual literacy, and how these hazards were fixed. Employees noticed that the rise and run of the steps were not consistent and to code, the treads of the steps were run down, and there was not a rail on one side of the steps. To fix the hazard, the steps were replaced to have the proper rise and run, new treading, and an added handrail.

TYPES OF HAZARDS IDENTIFY BY ELEMENTS OF ART

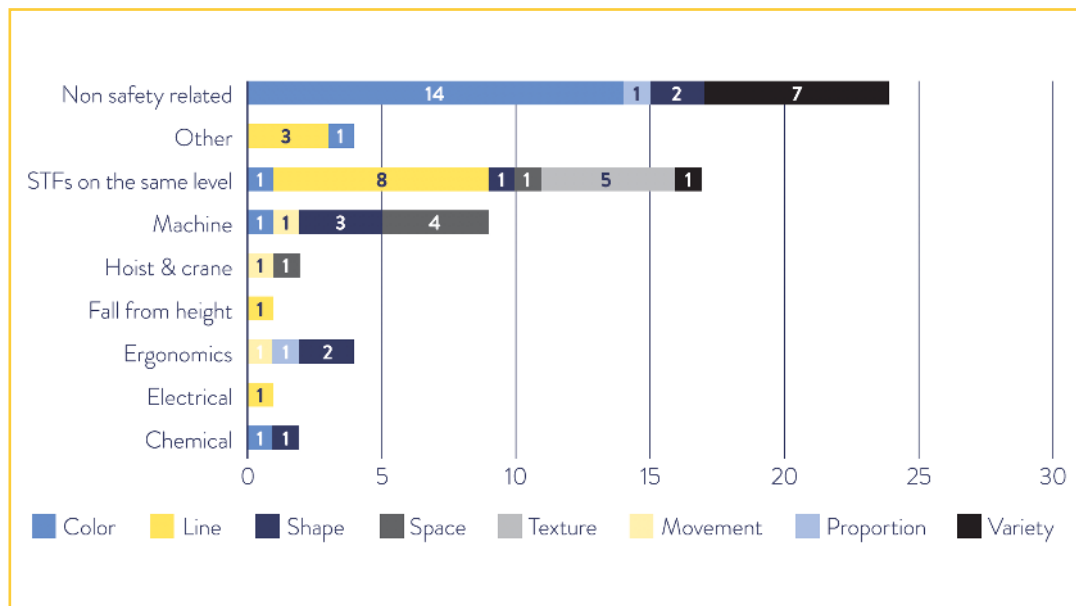


FIGURE 02
 TYPES OF HAZARDS IDENTIFIED USING VISUAL LITERACY ELEMENTS AT CUMMINS MANUFACTURING SITE, AS OF MARCH 2017

The types of hazards identified by using the elements of visual literacy (Figure 2) are varied and show the diversity of areas where visual literacy can be helpful in pinpointing potential hazards.

So far, the workforce has identified 17 slip, trip, and fall (on the same level) hazards and nine machine-related hazards.



Find out more about this leading edge and innovative approach to a fundamental safety problem. Contact our team, schedule an overview or read more at:

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About COVE: Center of Visual Expertise from the Toledo Museum of Art

COVE has developed a rigorous approach to helping people at Seeing the Whole PICTURE®. This methodology comes from years of study and teaching in the world of art. While the connection between the art world and industry may not be immediately obvious, we have developed a deep understanding of the application of Visual Literacy to safety through our partnership with the Campbell Institute at the National Safety Council and our industry partners, including Owens Corning, Cummins, United Rentals, and others.