Does instruction in visual literacy and communication skills change cadet presentations?

Instruction

The visual literacy and communication skills class was developed to include presentation preparation tips, critical thinking, preattentive visual properties, choosing appropriate visuals, fair use, copyright, and attribution.

After the introduction, as a class, we went through examples of actual student presentations (multiple class years, courses, and with identifying information removed) that represented the spectrum of student work. Using the information they just learned, students discussed how they would improve each slide.

Methodology

A sample of 116 students from 8 sections of MA104 were identified as being part of group 1 (did not receive instruction), group 2 (received instruction from their instructor), or group 3 (received instruction from the library liaison). All presentations were graded using rubrics, including those below.

Results

Students who received instruction in visual literacy and communication skills performed at a statistically significantly higher level in citations, use of visual aids, and legibility of text.

Background

The United States Military Academy (USMA) is a four-year undergraduate liberal arts college with a strong core curriculum requiring all students to take math, science, and engineering courses. All graduates are commissioned into the United States Army as 2nd Lieutenant and serve a minimum of 5 years on active duty.

The Association of College and Research Libraries defines visual literacy as “a set of abilities that enables an individual to effectively find, interpret, use, and create images and visual media.”

There are assumptions that students growing up as digital natives will have an inherent aptitude for visual literacy. However, exposure does not equal inherent aptitude for visual literacy.

To help students improve their presentations, the library’s liaison to the Department of Mathematical Sciences worked with the course director for MA104: Single Variable Calculus to develop a lesson on visual literacy and communications skills. This is a freshman level course with approximately 900 students enrolled each spring.

This study investigates the effectiveness of this instruction.

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This class was taught by the library liaison to all MA104 instructors, and to 3 sections of students.

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There was not a statistically significant difference in performance between students who learned these skills from their instructor or a library liaison.

This result suggests that this program can be scaled successfully so that more students can benefit from learning about visual literacy to improve their communications skills.