

THE PROBLEM:

- English Language Learners (ELLs) placed into remedial courses fail the ACT placement test at significantly higher rates than native speakers. As a result, students are blocked from credit-bearing courses.
- To address the problem: provide access to creditbearing courses by improving English-language, critical thinking, and observational skills.

WHY IS ART THE SOLUTION?

- Complex ideas presented in a visual manner
- Visual perception and visual understanding: making sense through the eyes
- Develops critical thinking through: multiple entry points and multiple interpretations
- Improves ability to observe and describe: critical skills for many subjects, but especially STEM field.

WHO WAS OUR POPULATION?

- ELLs assigned to BE226: upper level ESL reading course
- Four sections of BE226 chosen: two sections each taught by an adjunct instructor
- Number of students in each class: approximately 25
- Total number of students in both experimental and control groups: 93

METHODOLOGY:

- Two sections designated as a control group: received regular reading instruction with no additional treatment
- Two sections designated as experimental group: in addition to regular reading instruction, students were exposed to ten 50-minute sessions of the Visual Thinking Strategies instruction.
- Additionally, students in experimental group taken on two field trips: to local museum and QCC Art Gallery.
- Supplemental activities about art and artists provided by the reading instructor.

WHAT IS VTS?

- Visual Thinking Strategies (VTS): method for looking at and talking about art images
- Designed by Harvard cognitive psychologist, Abigail Housen and former director of museum education at MoMA, Philip Yenawine
- Three basic questions designed to elicit conversation are asked.
- Facilitator paraphrases all responses in the group, providing new vocabulary, but no corrections or judgments
- Method encourages critical thinking by forcing students to qualify the statements they make about art and by having them continue to look deeper for new details in the art work.

WHY USE VTS© WITH ENGLISH LANGUAGE LEARNERS?

- It develops observation, thinking, listening and communication skills
- It creates a safe environment to take language and opinion risks: Voice development
- It allows to bring prior experiences to the conversation: Engaging and Empowering
- o Questions: research based, student centered
- Pointing: links words to image
- o Paraphrasing: builds vocabulary
- o Linking: builds collective knowledge

RESULTS:

Passing rates on exit from remediation exam: ACT Compass:

Control Group: Experimental Group:

22 28

*These figures include students permitted to retake the exam after completing a 20-hour workshop.

VTS QUESTIONS:

- 1. What is going on in this picture?
- 2. What do you see that makes you say that?
- 3. What more can you find?

IMAGE



ART AND STEM

- According to Connect, the UNESCO International Science, Technology & Environmental Education Newsletter – "Visual literacy is an essential component of science and technology education."
- Science and Technology rely heavily on the use of pictures, graphs, diagrams, maps
- Students need the capacity to understand and generate pictures and fundamental to scientific and technological literacy
 - o Lowe, R. (2000). Connect 25 (2), 1-3.

ART IN MEDICAL SCHOOL

- The following medical schools are currently studying the use of VTS and art observation:
 - o Harvard Medical School
 - o Columbia University Dept. of Medicine
 - o University of California
 - o Tufts University School of Medicine
 - Depts. of Medicine and Neurology Brigham and Women's Hospital
 - o University of Texas Health Science Center

WHY:

- To improve students' observations of artwork and apply those skills to patient care
- Findings show that medical students improved their observational skills by becoming more precise, developed more tolerance for ambiguity, enhanced their awareness of patient emotions, spent more time making observations, as well as improved communication skills and analytic thinking.

