



Visual Thinking Strategies (VTS): A New Role for Art in Teaching Physicians About Implicit Bias

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Introduction

- Strong evidence highlights the link between implicit bias among healthcare providers and poor health outcomes in marginalized populations.
- The COVID-19 pandemic has further emphasized existing health inequities
- Government officials have mandated implicit bias training for licensure of all healthcare professionals in the state of Michigan.
- Virtual Thinking Strategies (VTS) offers an innovative teaching approach to implementing implicit bias training
- VTS uses art to help students improve observational, critical thinking, and communication skills.
- It requires a trained facilitator to engage students with a work of art, encouraging thought and interpretation of what they perceive is happening.
- Upon reflection and verbalization of one's thoughts, students are able to learn and understand better.

Methods

We collaborated with the most visited museum in Michigan, the Detroit Institute of Arts (DIA)

The WSU/DMC Internal Medicine Residency program delivered a two-hour VTS workshop in the DIA with VTS-trained DIA facilitators, to elicit reflections on implicit bias.

Our VTS workshop entailed 3 components:

1. **Open-ended questions** about a work of art designed to provoke participants to look closer, put observations into words, and provide visual evidence for what they were seeing
2. **Practice of learned skills** in front of visual art and receive feedback to strengthen their understanding of VTS
3. **Reflective group discussion** to help participants understand how VTS can be used in patient interactions and reduce implicit bias



Figure 1. Image credits: Samuel Richards, *Evangeline Discovering Her Affianced in the Hospital*, 1889. Oil on canvas. Detroit Institute of Arts, Detroit, MI

Results

Quantitative analysis:

- Mean number of observations between pre- and posttests had significantly increased after the workshop: n = 59 pre-test, n=28 post-test: **3.86 vs. 5.29**, p = 0.0013

Qualitative analysis of image included revealed some of the following themes:

1. Use of subjective terminology
2. Speculative thinking
3. Use of visual analogies

50% of participants responded that VTS has a role in medical training
40% reported that the workshop will change the way they practice medicine

Conclusions

- Implicit bias among physicians is a manifestation of institutionalized racism and has been associated with poor health outcomes in marginalized populations
- Existing health disparities highlighted by the COVID-19 pandemic
- VTS is an effective and a creative method of raising awareness of implicit biases among physician trainees and can be a valuable model for bias training
- It is imperative now more than ever that physicians undergo the appropriate training to become aware of these biases.

Future Directions

- The WSUSOM/DMC Internal Medicine residency program will continue to implement VTS training
- We plan to implement more session throughout the year to encourage continued reflection and acknowledgement of implicit bias, as literature supports continuity for long-term retention and implementation
- We plan to transition VTS training for medical students and other residency programs in our hospital, state, and hopefully throughout the nation
- More consistent interactions with art and applications in a clinical context is needed in order to solidify these skills for clinical practice

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