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Evaluation of Fine Arts Education With Collaborative Reflection to Enhance Observation and Visual Intelligence Skills
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Purpose:
Visual literacy, including visual intelligence (VI), is a key competency in observing, perceiving and communicating. Health care professionals encounter visual representations with expectations that observed images are analyzed, interpreted, and reported accurately. Recognizing connections between visual assessment and critical thinking, medical and nursing educators are incorporating fine arts education into curriculums to build and expand VI competencies (Honan et al. 2016; Moorman & Hensel, 2016; Slota, McLaughlin, Bradford, Langley, & Vittone, 2018). The purpose of this study was to evaluate the impact of fine art education with doctor of nursing practice (DNP) students.

Methods:
This study was approved by the university Institutional Review Board. Collaborating with art historian educators, DNP students attended a structured half-day fine arts education session involving reflection at a national gallery of art. This purposive sample of 28 students were invited to voluntarily participate in this study, which had no impact on the course grade. Students completed a Visual Intelligence Assessment Tool (VIAT) followed by an exercise limited to 5 minutes which involved viewing a visual image of an individual and listing observable assessment findings (image exercise adapted from Dolev, Friedlaender, & Braverman, 2001). Post intervention included completion of the VIAT and a repeat of the image exercise using a different visual image of an individual. Two graduate faculty scored the list of findings individually, eliminating findings unable to verify by observation. Differences in scores were reconciled by discussion and consensus.

Results:
The Wilcoxon Signed Ranks Test was used to compare pre to post results. Four questions on the VIAT demonstrated significant differences in means: "I have excellent communication skills" ($Z=-1.999$, $p=0.046$), "I am an impactful communicator" ($Z=-2.652$, $p=0.008$), "I understand the role of visual intelligence on perception" ($Z=-2.359$, $p=0.018$), and "I understand the role of visual intelligence and empathy" ($Z=-2.521$, $p=0.012$). Another question demonstrated a trend toward significance: "My observation skills need enhanced" ($Z=-1.811$, $p<0.070$). There was also a significant difference in total score from pre to post: Mean pre was 3.65 (SD = .324) and mean post was 3.77 (SD = .278), $t(27) = 2.076$, $p = .048$. Evaluation of the visual image results from pre to post assessment yielded significant differences ($Z=-3.764$, $p< 0.001$) in scores for observable physical findings.

Conclusion:
Findings demonstrate significant differences between pre and post assessments for the VIAT and differences in observed physical findings from images reported by DNP

students. Educators can collaborate with art historians and teach VI skills to enhance how health care professionals analyze, interpret, and report observations accurately based on visual evidence, rather than on assumptions.

Title:
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Keywords:
Fine art education, Graduate nursing education and Visual intelligence

Abstract Summary:
Fine art education with collaborative reflection was implemented and evaluated with doctor of nursing practice students. A Visual Intelligence Assessment Tool and visual image exercise were used to determine impact on the health care professionals' perceptions and ability to analyze, interpret, and report observations accurately based on visual evidence.

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