

9-2023

Affective Domain Development in Virtual Education: Visual Thinking Strategies and Art Pedagogy

Jayne Josephsen
Boise State University

Affective Domain Development in Virtual Education: Visual Thinking Strategies and Art Pedagogy

Jayne Josephsen¹, EdD, MSN, RN, CCCTM, CHPN 

¹School of Nursing, Boise State University, 1910 W University Drive, Boise, ID 83725, USA

ABSTRACT

Development of the affective domain is linked to increasing self-awareness of internal dialogue, such as biases and assumptions, which can affect the ability of nurses to engage in person-centered care and meet the identified patient outcomes. Through visual thinking strategies (VTS) paired with art-based pedagogy to examine grief, loss, and bereavement concepts in a hospice and palliative care nursing virtual education course, affective domain development was advanced. Foundational to this virtual educational intervention was using the VTS framework of questions and pairing them with art-based pedagogy promoting open-ended interpretation and response to the art presented. This assisted the students in identifying relevant information, making judgments, and connecting them to previous knowledge. Using VTS with an art-based pedagogical framework enhanced person-centered competencies of empathy, understanding diverse perspectives, and advanced critical thinking and observational skills. Applying this teaching strategy to various healthcare disciplines, changing the concepts, and utilizing varying art-based pedagogical formats can easily be adapted into virtual courses, preparing healthcare practitioners to meet identified curricular needs and learning outcomes and advancing patient-centered competencies.

Keywords: Education, Nursing, Distance, Teaching, Thinking

*Corresponding author:

Jayne Josephsen, EdD, MSN, RN, CCCTM, CHPN
School of Nursing, Boise State University, 1910 W University Drive, Boise, ID 83725, USA
Email: Jaynejosephsen@boisestate.edu

Please cite this paper as:

Josephsen J. Affective Domain Development in Virtual Education: Visual Thinking Strategies and Art Pedagogy. *Interdiscip J Virtual Learn Med Sci.* 2023;14(3):238-243. doi:10.30476/IJVLMS.2023.97793.1206.

Received: 04-03-2023

Revised: 04-23-2023

Accepted: 05-13-2023

Problem

Nurses must possess keen observational and assessment skills concerning patient conditions and circumstances (1). Observational and evaluation skills are central to promoting the identified patient outcomes by noticing changes in conditions or situations and modifying care appropriately (2, 3). This requires the nurses to possess strong affective domain skills to interpret the situation and critically analyze and synthesize data gathered to inform and direct the care provided. The affective domain consists of

five levels beginning with awareness and attention or “receiving” of cues, data, and communication. The second and third levels focus on the nurse’s behaviors and attitudes connected to what is received. The fourth and fifth levels involve “organization” and integration, or the ability to incorporate new awareness, behaviors and attitudes into nursing practice (4-6).

Affective domain skills are often influenced by the nurse’s own life experiences, perspectives, or inferences, potentially leading to the development of implicit biases, which

cause improper deductive reasoning or actions (2). The nurse may not be consciously aware of their implicit biases and assumptions and may use them to predict expected behaviors or responses to care or situations. Nurses must be aware of their biases and assumptions and open-minded to the evidence presented (7). In addition, the nurse must embrace the possibility that their observation and assessment of the situation or circumstance could be affected by implicit biases and assumptions, jeopardizing their nursing judgment, treatment decisions, and the care delivered (8). The pairing of observational and assessment skills with person-centered care is based on a holistic view of the patient and the ability to understand and receive various perspectives and interpretations of communication and meaning (9). Incorporating art-based pedagogies into the nursing curriculum can assist in developing the student's affective domain, providing for nurses who can effectively engage in holistic and person-centered care (10).

Enhancing self-awareness of internal processes and observational and assessment skills leads to the requisite development of the affective domain. The affective domain is globally recognized for its importance in helping the nurse manage the emotional contexts of interacting with people with diverse views and experiences (11). Affective domain skills include communicating empathy and compassion, considering other perspectives and lived experiences, and understanding the context of an individual's decisions, behaviors, or lifestyle. Affective domain skills also contribute to critical analysis, synthesis, and the ability to view concepts or ideas from various standpoints and enhance critical thought. Visual thinking strategies (VTS) paired with art-based pedagogy in nursing curricula can enhance person-centered competencies, such as communication, and improve observations and assessment skills, tolerance for uncertainty, analysis, and teamwork competencies across various settings (2, 12, 13). Integrating art-based pedagogies into

virtual coursework can promote affective domain learning outcomes such as valuing a person's inherent worth, being willing and able to receive a variety of perspectives, and understanding the relationship between values and attitudes and how these can affect behaviors (4).

Solution

Abigail Housen and Philip Yenawine designed VTS to create opportunities for inclusive discussion using small group methods based on interpretation, perception, and interaction, facilitating a discovery process on selected art images. This was based on Housen's theory of Aesthetic Development and how people perceived visual art and is most often used in live courses with in-person participation (12). The foundation of VTS is an "open-ended" facilitated discussion around selected images based on three fundamental questions (13): 1. What is going on in this picture? 2. What do you see that makes you say that? 3. What more can we find? These questions assist the students in identifying relevant information, making critical judgments, and then connecting these to previous knowledge and schemas (2, 3). In question one, "What is going on in this picture?", the goal is to focus on the image and enhance the discovery process, promoting multiple interpretations, connections, and ways of meaning. Question two, "What do you see that makes you say that?", promotes reasoning and connection with the context of the image. The third question, "What more can we find?", expands the analysis process and can lead to observational or noticing skill development (12).

VTS has art-based pedagogy as its foundation. Art-based pedagogy can be delivered with various artistic approaches, such as drawing, painting, improvisation, music, dance, poetry, or any other type of creative expression (10). A common concept in art-based pedagogy is "openness," allowing for an open-ended interpretation and response to art (14). Incorporating art into an assignment can encourage the student

to self-reflect upon their own beliefs and vulnerabilities, as well as those of others, and embrace diverse perspectives concerning the content, engaging the student in learning by linking emotions to the cognitive process, reasoning, and problem-solving (15). VTS based on art-based pedagogy can allow students to participate in transformative learning, adjust and adapt their perceptions and thinking processes, and enhance affective domain development.

Assignment Pairing VTS and Art-Based Pedagogy

Nursing practice often requires providing care to others during highly emotional times. The nurse must use well-developed observational and affective domain skills and understand “other ways of knowing,” being self-aware of their beliefs and attitudes concerning emotionally charged issues and situations (16). To address the development of the affective domain, we created and implemented an assignment based on VTS and art-based pedagogy in a virtual asynchronous hospice and palliative care nursing course in an online associate degree registered nurse to baccalaureate degree completion program. Hospice and palliative nurses must address emotionally charged situations such as end-of-life processes, active dying, and emotions of grief and loss. Student learning outcomes for this assignment included enhancing the student’s ability to examine the concepts and emotions of grief, loss and bereavement, reflect upon the student’s feelings and beliefs, and consider diverse perspectives concerning these concepts. A secondary outcome was integrating knowledge from the humanities, art in this case, into the science of nursing.

An Internet search for art was performed to find artwork displaying variations of the concepts of grief, loss, and bereavement as this was the focus of the assignment. Ultimately, about 20 pieces of artwork were selected and reviewed to determine the copyright status and if they could be posted to the virtual education learning management system. There were other items to consider, such as the diversity of art, different cultural genres, and quality of the art for viewing in the virtual format. Ultimately seven pieces of artwork were selected to be included in the assignment as they were available open source, represented various genres and had good visual quality. Additionally, the artwork chosen provided different interpretations or potentially had multiple narratives. See Table 1 for the list of artworks used in this assignment.

Three basic VTS questions were used to create asynchronous discussion board prompts, focusing on analyzing and critically reflecting on the image and applying the student’s prior knowledge and experiences, thus supporting constructivist learning theory (12). The VTS questions were adjusted to meet the need to focus on observational and assessment skill development. In addition to “What is going on in this picture?” words such as observe, notice, and see were added to hone into aspects of the nursing process, which required reflecting upon multiple aspects of a situation and doing an environmental scan. In addition, to focus on the discussion, we pointed out the concepts related to the goals of the assignment in the discussion prompt.

The second VTS question, “What do you see that makes you say that?” was asked while words such as explain and think were added,

Table 1: Assignment Artwork

Artwork Title	Artist
Untitled Pinax (Plaque) - 6th Century B.C	Gela Painter (Real Name Unknown)
Monastery Cemetery in the Snow - 1819	Caspar David Friedrich
Oak Fractured by Lightning - 1842	Maxim Vorobiev
The Isle of the Dead – 1883	Arnold Böcklin
Inconsolable Grief – 1884	Ivan Kramskoi
Old Man in Sorrow (On the Threshold of Eternity) – 1890	Vincent van Gogh
A Funeral – 1891	Anna Ancher

as these are critical aspects of nursing. The nurse must be able to think critically through a situation and provide a rationale for why he/she believes or perceives something concerning a patient's condition or situation. An additional question was added to address the need for the students to be aware of their biases, assumptions, and beliefs that might affect how they interpreted the image and explore alternate ideas, perspectives, and narratives represented in the picture. The third VTS question was expanded to include essential words for nursing practice, such as notice, encouraging the student to review the image for critical items missed on the first pass. See Table 2 for the discussion prompts used compared to the usual VTS questions.

This assignment was given in an asynchronous discussion board format, so that each student posted his/her initial response and reviewed other peers' postings to further understand diverse perspectives and alternate interpretations and applications of the artwork, opening communication between peers about essential concepts. This impacted the student's ability to engage in dialogue with others about new or different perspectives, self-reflection, and critical analysis, and enhanced the "openness" concept as there is no right or wrong way to interpret or approach the artwork (17).

Results

VTS paired with art-based pedagogy is effective in the virtual learning environment and supports transformative learning, interaction in the community of learners, critical reflection and thinking skills, and

conceptual schema development (10). The VTS questions can be adjusted to represent multiple disciplines and concepts, focusing on specific learning outcomes. Questions can be scaffolded, beginning with the basic VTS questions and advancing to a more in-depth critical analysis of the art and how the concepts found and reviewed can be applied to the student's future nursing practice. Additionally, the images or type of art can be adjusted to focus student learning on other learning domains and goals. VTS allows this flexibility as images or other art forms can be selected to challenge the student and align with curricular outcomes and goals.

Assignments utilizing VTS and art-based pedagogy are based on the constructivist view, involving exploration, identification of relevant information, and organization of information, supporting the development of the affective domain (11). This assignment promoted an in-depth discussion of the concepts of grief, loss, and bereavement and how each image may support a variety of narratives and emotions. The results indicated that as students took a second look at the picture, they noticed items they missed on the first pass, and more profound meaning-making occurred. An informal analysis of discussion board postings was conducted, examining the posting content for meta-cognitive activity, self-reflection, and the student's ability to receive and perceive alternate interpretations of meaning in art. The analysis indicated that students were empowered to focus on developing observational skills, sharpening aspects of the image, seeing alternate contexts and interpretations, and visualizing

Table 2: Discussion Prompts Compared to Through visual thinking strategies Questions

Discussion Prompt	VTS Question
Prompt 1: "Describe what you see, observe, or notice in the artwork concerning the concepts of grief, loss, or bereavement."	"What is going on in this picture?"
Prompt 2: "Explain why you think that is what the artwork is representing."	"What do you see that makes you say that?"
Prompt 3: "What new ideas or perspectives did you find when viewing the artwork concerning the concepts of grief, loss, or bereavement that you can apply to your nursing practice?"	None
Prompt 4: Now, go back and look again at the artwork. What else can you find that you did not notice on first view?	"What more can we find?"

how the course concepts could be applied to their future nursing practice in a relevant and tangible manner. Furthermore, this assignment connected nursing science to the humanities. It allowed the student to discuss visual imagery and connect it to their own lived experiences and others through discussion, enhancing inclusive and diverse thinking skills.

Limitations and Suggestions

As one of the limitations of this assignment, it was offered at one university in multiple sections of one virtual asynchronous course, with a specific focus on grief, loss, and bereavement concepts. Further research is needed to examine how VTS and art-based pedagogies can affect the development of affective domain skills. Additionally, the assignment could be examined for application in a synchronous versus asynchronous virtual environment with differing art forms (photography, music, etc.) to ascertain if one type of art-based VTS strategy is more relevant to affective domain and skill development.

When students are engaged in VTS, supported by art-based pedagogy, they can reflect upon their life experiences, reinforcing the growth of the affective domain skills, including empathy and inclusivity. Reflecting on their knowledge and experiences the students are encouraged to reflect critically on those experiences and to become self-aware of personal assumptions and biases. This leads to a transformative learning experience, encourages the students to be more inclusive in attitudes and behaviors, and develops transferable skills, competencies and attitudes for relationship-based and person-centered care, positively impacting nursing care outcomes (18). Nurses must possess solid affective domain knowledge and skills for their nursing practice. VTS paired with art-based pedagogies allows this knowledge and skill development in virtual learning environments.

Conclusion

The innovative teaching method presented

in this article was created using VTS and art-based pedagogy as a foundation for affective domain development in an online nursing education program's hospice and palliative care nursing course. Nurses must possess the ability to embrace and recognize diverse views and experiences concerning highly emotional situations such as grief, loss, and bereavement. This assignment focused on the unique affective domain dimension of critical synthesis and analysis skills essential to nursing practice and person-centered care. The use of VTS and art-based pedagogy in the development of this assignment provided an avenue for students to become aware of biases or assumptions that might affect the nursing care delivered. Furthermore, through the integration of VTS and art-based pedagogy into nursing education courses, students can heighten their observational skills and inclusive thinking processes that positively impact nursing practice.

Authors' Contribution

JJ, conceptualization, literature search, and manuscript drafting.

Conflict of Interest: None declared.

Ethical Consideration

The preparation of this article did not involve any research conducted on human subjects or animals. Hence approval from the ethics committee is not required.

Funding

For the preparation of the article, the author did not receive any outside funding or support.

References

- 1 Alastalo M. Patient observation skills in critical care nursing a theoretical construction and evaluation [dissertation]. [Turku, Finland]: University of Turku; 2021 [cited 2023 Jan 11]. Available from: https://www.researchgate.net/publication/352366101_PATIENT_OBSERVATION_SKILLS_IN_CRITICAL_CARE_NURSING_A_

- Theoretical_Construction_and_Evaluation.
- 2 Collier NB, Taylor L. Fostering awareness of implicit bias using an adapted visual thinking strategy and reflection. *J Physician Assist Educ* [Internet]. 2022 Jun;33(2):145-7. doi:10.1097/JPA.0000000000000425.
 - 3 Poirier TI, Newman K, Ronald K. An exploratory study using visual thinking strategies to improve undergraduate students' observational skills. *American Journal of Pharmaceutical Education* [Internet]. 2020 Apr;84(4): 451-8. doi:10.5688/ajpe7600.
 - 4 Driscoll MP. *Psychology of learning for instruction*. 2nd ed. Boston (USA): Allyn and Bacon; 2000.
 - 5 Lease L. Teaching, learning, & everything in between Krathwohl and Bloom's affective taxonomy [Internet]. 2018 Aug [updated 2018; cited 2023 Jan 13]. Available from: <https://lynnleasphd.com/2018/08/23/krathwohl-and-blooms-affective-taxonomy/>.
 - 6 Simm D, Marvell A. Gaining a "sense of place": students' affective experiences of place leading to transformative learning on international fieldwork. *Journal of Geography in Higher Education* [Internet]. 2021 Nov;39(4):595-616. doi:10.1080/03098265.2015.1084608.
 - 7 Papatnasiou IV, Kleisiaris CF, Fradelos EC, Kakou K, Kourkaouta L. Critical thinking: the development of an essential skill for nursing students. *Acta Inform Med* [Internet]. 2014 Aug; 22(4):283-6. doi:10.5455/aim.2014.22.283-286.
 - 8 FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. *BMS Med Ethics* [Internet]. 2017 March;18(1):1-18. doi:10.1186/s12910-017-0179-8.
 - 9 Reiger KL, Chernomas WM, McMillan DE, Morin FL. Navigating creativity within arts-based pedagogy: implications of a constructivist grounded theory study. *Nurse Education Today* [Internet]. 2020 Aug;91:1-9. doi:10.1016/j.nedt.2020.104465.
 - 10 Obara S, Perry B, Janzen KJ, Edwards M. Using arts-based pedagogy to enrich nursing education. *Teaching & Learning in Nursing* [Internet]. 2022 Jan ;17(1):113–20. doi:10.1016/j.teln.2021.09.003.
 - 11 Aspden T, Egan JP, Bye L, Petersen L. Using visual thinking strategies to support development of pharmacy student competency in person-centered care. *American Journal of Pharmaceutical Education* [Internet]. 2022 Mar;86(3):217–25. doi:10.5688/ajpe8607.
 - 12 Yenawine P. *Visual thinking strategies: using art to deepen learning across school disciplines*. Cambridge, MA: Harvard Education Press; 2013.
 - 13 Kelly-Hedrick M, Chugh N, Zahra FS, Stephens M, Chisolm MS. Art museum-based teaching: visual thinking strategies. *Academic Medicine: Journal of the Association of American Medical Colleges* [Internet]. 2022 Aug;97(8):1249. doi:10.1097/ACM.0000000000004600.
 - 14 Sikkema S, Lee J, Spilberg J, Dahn M, Yankova N, Pepler K. How the arts can unlock a closed curriculum. *Phi Delta Kappan* [Internet]. 2021 May;102(8):20–5. doi:10.1177/003172172110139.
 - 15 Cavanagh SR. *The spark of learning: energizing the college classroom with the science of emotion*. Morgantown, WV: West Virginia University Press; 2016.
 - 16 Bertman S. Hannelore Wass: insights into creative teaching and other ways of knowing when facing aging and mortality. *Death Studies* [Internet]. 2015 Oct;39(9):537–44. doi:10.1080/07481187.2015.1079451.
 - 17 Stensæth K, Eide IB. Umberto Eco's notions of the "open work" and the "field of possibilities": New perspectives on music therapy and co-creation? *British journal of music therapy* [Internet]. 2017 Nov;31(2):86–96. doi:10.1177/135945751667862.
 - 18 Rudebeck CE. Relationship based care – how general practice developed and why it is undermined within contemporary healthcare systems. *Scandinavian Journal of Primary Health Care* [Internet]. 2019 Sep;37(3):335–44. doi:10.1080/02813432.2019.1639909.