
The Value and Practice of Visual Thinking Strategies

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Responding to art is a valuable process and can be a useful strategy when integrating art into other content areas. This is because art provides a “third space” (see Stevenson & Deasy, 2005) for learning. In this third space, students and teachers may find what the director general of UNESCO, Kochiro Matsuura, calls “The promise of unexpected dialogues” (Mbuyamba, 2006, cited in Donahue & Stuart, 2010), or as Yenawine (2014) believes “permission to wonder” (p. 1). According to Eisner, a renowned art education advocate and researcher (2002), art integration promotes the transformation of attentive and creative thinking, while other educators believe that art integration may offer a metaphor for creating multicultural understanding and social justice (Bains & Mesa---Bains, 2002; Heck, 2001). Thus, the purpose of this paper is to describe visual literacy and an adapted version of Visual Thinking Strategy (VTS) and its value to enhance students’ inferential thinking. An example of a middle school VTS, art---integrated lesson is described as well as reflections of a middle school language arts teacher (Heidi) about what she learned about her students as thinkers, writers, and painters.

Mendelsund (2014) asks, “What do we see when we read?...What do we picture in our minds?...There is a story called ‘reading’...It is a story of pictures, and of picturing” (p. 7---8). This author goes on to explain that readers fill in gaps, and
that we do not wait to start imagining. Readers are permitted certain freedoms and are invited to be full contributors to the picturing of a narrative. Authors are curators of experience. Their task is to choose words to create order and to form a memorable picture for the reader. Our imagination when reading calls upon our prior knowledge and is linked by free association; hence, it may be “untethered” from the author’s text.

One benefit of viewing art is the opportunity to increase reading comprehension. How might this be? Through a discussion in response to viewing art, scaffolding may be offered to students to step from a text-free environment to a text environment (Klein & Stuart, 2013). Thus, this avenue is afforded to teachers and students since art has the power to stop us. Artists want a viewer to reconsider a world that may or may not have been seen before. “We cannot expect students to understand that which they do not notice” (Serafini, 2014, p. 32).

**Visual Literacy**

The basic instinct to look is human. Visual literacy is a social and cognitive process. It is the process of generating meanings in transaction with multimodal ensembles including written text, visual images, and design elements, from a variety of perspectives to meet the requirements of particular social contexts. Theorists who have worked to expand the definition of visual literacy have combined psychological theories of perception with the sociocultural aspects of visual design and social semiotics—how meanings are communicated (Chauvin, 2003).

Berger (1972) suggests that looking is a physiological or perceptual act while seeing is an interpretive act based on sociocultural considerations and contexts. The
way we see things is affected by what we know or what we believe. “We don’t see things as they are, we see them as we are” (Anais Nin, in Epstein’s Mindful Practice, 1999, p. 835). This is to say, when viewing art, there is no “innocent eye” (Ernest Gombuch, cited in Mendelsund, 2014, p. 197). We have choice and agency. Seeing is an act of choice through which viewers negotiate social relationships and meaning potentials, develop the social practice interpreting, and learn how to navigate relationships of power in this process (Sturken & Cartwright, 2001). Because these meanings are not fixed, nor stable, they give agency to the student, who can then revise and renegotiate meanings with others. For Hall (1997) interpretations of art may be dominant (if the message is unquestioned), negotiated (where meanings are questioned and negotiated), or oppositional (where the dominant message is rejected).

**Visual Thinking Strategy**

Through her research, cognitive psychologist, Abigail Housen (2001---2002) studies how people think when they look at art. Based on these findings, Visual Thinking Strategies (VTS) has been developed as a method initiated by teacher---facilitated discussions of art images (see Yenawine, 2013). It is perhaps the simplest way that teachers can provide students with key behaviors sought by Common Core Standards (2012). Thinking skills through practice become habitual and transfer from lesson to lesson. They enable oral and written language literacy, visual literacy, as well as collaborative interactions among peers. Through VTS’ rigorous group “problem-solving” process, students are motivated and enabled to present their own ideas, while respecting and learning from their peers.
Why an adapted version of VTS? The VTS method (co-developed by Abigail Housen and Philip Yenawine) is a copyrighted strategy that uses specific questions for discussions:

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

In another similar method, Artful Thinking Routines (Ritchart et al, 2006), creative thinking is practiced by using six avenues to explore artistic works across the curriculum and deepen art experiences: questioning and investigating, observing and describing, comparing and connecting, finding complexity, expanding viewpoint, and reasoning. This strategy has questions used for discussion about art in the following categories: Comparing and connecting, Exploring Viewpoints, Finding Complexity, Observing and Describing, Questioning and Investigating Reasoning. (See http://pzartfulthinking.org/?page_id=2). Two examples of questions under the questioning and investigating reasoning category are:

1. What’s going on (happening) in the picture?
2. What makes you say that?

Keeping in mind and respecting these two methods, the adapted version includes the types of questions in Question/Answer Relationships (QARs) developed by Raphael (1982, 1986), since this lesson took place in a middle school language arts classroom where QARs are familiar. In QARs, there are four levels of questions: “Right There” (factual level), “Think and Search” (inferential level), “Author and You” (the reader needs to understand the author's message), and “On My Own”
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(prior knowledge of the reader). In addition, Herber’s (1978) three levels of comprehension: literal, interpretive, and applied (moral level) are evident in the adapted approach.

The Grant

The River Rouge School District (Michigan) received a four---year Arts in Education Model Development and Dissemination Program (AEMDD) grant, funded by the U. S. Department of Education. Eastern Michigan University has been subcontracted to work with the school district. The purpose of the grant program is to support the enhancement, expansion, documentation, evaluation, and dissemination of innovative, cohesive models that are based on research and have demonstrated that they effectively (1) integrate standards---based arts education into the core elementary and middle school curriculum; (2) strengthen standards---based arts instruction in these grades; and (3) improve students’ academic performance, including their skills in creating, performing, and responding to the arts.

In order to model art---integrated lessons, in each of the four years of the grant entitled, “Thinking Like an Artist in Core Curriculum Subjects”, on 20 Fridays during the school year, three pairs of secondary language arts preservice teachers, three pairs of secondary mathematics preservice teachers, as well as art preservice teachers worked together each week to plan and travel to the Sabbath Middle School to present art---integrated language arts or mathematics lessons and then extend those lessons into the art class. The preservice teachers planned the lesson with input from the classroom teachers, as well as from literacy, mathematics, art education, and technology consultants from Eastern Michigan University and its
surrounding school districts. Each lesson includes one common core goal from either language arts and one national art standard. Each lesson begins with a Visual Thinking Strategy discussion.

(Also, three pairs of elementary language arts preservice teachers, three pairs of elementary mathematics preservice teachers, as well as art preservice teachers worked together each week to plan and travel to Ann Visger Elementary School in River Rouge to present art-integrated language arts or mathematics lessons and then extend those lessons into the art class.)

In addition, there is an annual 30-hour summer art-integration institute presented by art teachers and Eastern Michigan University professors from the art department. Three Saturday morning professional development workshops presented by Eastern Michigan University art professors are opportunities for artists to talk about their thinking as an artist and to walk teachers through art projects in diverse media followed by a discussion of how the thinking involved could be used during instruction to promote motivation and achievement of K-8 students in language arts and mathematics. EMU art professors also visit art classrooms in the elementary and middle school during the year to present lessons that describe thinking as an artist and to walk students through art projects.

The Setting

The middle school where this lesson took place is in River Rouge, an urban area bordering Detroit, and about 35 miles from Eastern Michigan University. The student population of 300 is diverse: 65% African-American, 18% Hispanic, 10%
Caucasian, and 4% mixed races. Almost all the students (95%) are eligible for free or reduced lunch. Standardized tests scores are well below the state average.

**An Inservice**

As part of the grant, Peggy Daisey (a project co-director and secondary content area literacy teacher educator) explained to teachers that a Visual Thinking Strategy discussion is valuable to students who are struggling readers, because they could practice thinking on the literal, inferential, and generalization level by looking at art, and then be reminded of their thinking process when moved to text that is read aloud to them, and then text that they read themselves.

Claudia Burns (an art-integration consultant for the grant) demonstrated to the middle school teachers of diverse subject areas how to facilitate a Visual Thinking Strategy discussion with their students. She asked teachers to take out their phones and to think of a topic that they would teach in upcoming days. Teachers were asked to follow the steps below:

1. Google your topic and the word “artist.”
2. Scroll down to images and choose a few that provokes thinking and leads into your lesson.
3. Formulate literal (“What do you see?”), inferential questions (“Why do you think?”), and generalization/moral level questions (“How does this relate to...?” “What is the moral to this story?”). Ask about viewpoint and the message the artist is trying to convey. Think about and connect your prior knowledge and experiences to the artwork.
4. Show your school’s art teacher the artwork and have a chat about art
techniques used and background/context of the artwork.

5. Show students the photos of the artwork one by one (also showing and
saying something about the artist).

6. Encourage risk-taking but make sure you ask students to justify their
thinking.

Peggy has discovered artwork related to a wide range of topics through this
process. She explained to teachers that Brumberger (2011) also suggests the
following questions to consider when viewing art. “Whose point of view does the
image portray?” “Who do you think produced the image and for what purpose?”

Claudia and Peggy discuss a curricular framework for organizing the way teachers
could support students’ experiences with particular multimodal ensembles by
organizing a lesson into three phases: 1. Exposure to a wide variety of examples, 2,
Exploration and 3 Engagement. The final phase of engagement invites students to
produce a multimodal ensemble of their own for authentic and relevant purposes
(Serafini, 2014). Here is an example, that Claudia Burns, led teachers through using
an image displayed on a large screen.

**The Problem We All Live With**

Norman Rockwell’s 1964 painting is an iconic image of the Civil Rights
Movement. It pictures six year-old African-American Ruby Bridges entering the all-white William Frantz Elementary School in New Orleans on November 14th, 1960
surrounded by four deputy U.S. marshals, with a smashed and splattered tomato
and the “N word” written on a white wall behind them. The painting is from the view
of the white protestors. There is a strong white and dark contrast to further its racial theme. President Barack Obama asked that the painting be hung in the hallway next to the Oval office, where it was displayed between July and October 2011. As art historian William Kloss noted, “The N---word there---it sure stops you.” (Wikipedia.)

Claudia asked teachers to think literally by describing what they saw in the painting. She then asked teachers to think inferentially and say what they thought happened before and after the scene in the painting. Teachers’ answers were probed for justification of their thinking. Claudia prompted teachers to predict what they thought the artist’s message or point was by painting this scene. Teachers also talked about their prior knowledge of this scene and its ramification of this time in
U. S. history. Teachers were reminded of the power of art to make political statements.

Historian and social justice advocate, Howard Zinn (2003) notes the work of artists in times of inequality and injustice. Artists have a long tradition of giving voice and identity to those on the margins of power, speaking out against injustice, as well as promoting change. An important role of art is to make the marginal central. By viewing and making art, students have an avenue to notice and give thought to social justice issues (Heck, 2001). Art does this through juxtaposition, creating off balance, exaggeration, humor, agony, emphasis, or repetition to help explain an artist’s message. Thus, the viewing of art has the power to promote the habits of mind needed for a more just and equitable world.

Teachers were then to plan and present art---integrated lessons that began with a Visual Thinking Strategy discussion based on a common core goal. Heidi Williams, a language arts teacher, chose the common core goal for 7th grade language arts relating to inferential thinking and informational text. (CCSS.ELA---Literacy.R1.7.1 *Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inference drawn from the text.*) Heidi found a painting by Winslow Homer that she thought worked well with asking students to infer a narrative about what happened before and after. The following describes this lesson.

**The Winslow Homer Assignment**

Winslow Homer was an American artist who lived most of his life in the 1800s, and painted many marine scenes. His 1899 painting entitled *The Gulf Stream*...
depicts a stormy sea, and black man in an open, rudderless boat surrounded by sharks. This painting was conceived during one of Homer's trips to the Caribbean. It suggests the vulnerability of humans against nature.

Homer, Winslow (1836---1910). The Gulf Stream. 1899. Oil on canvas, 28 1/8 x 49 1/8 in. (71.4 x 124.8 cm). Catherine Lorillard Wolfe Collection, Wolfe Fund, 1906 (06.1234)

Heidi wished to attract the attention of her middle school ELA students in order to increase their viewing and thinking skills. Her students participated in this art--integrated lesson to practice thinking inferentially and to add detailed description to writing in order to help their classmates make inferences about what the writer was envisioning. Heidi provided students with background information about Winslow Homer. Students were shown some of his marine scene paintings in
order to provide context. Then Heidi showed them an image of his painting “The Gulf Stream” and walked through a VTS discussion.

Heidi recalls that her students noticed the facts right away. For instance, students said that the man was black; the boat was not in good condition, and the sharks looked dangerous. When asked on the inferential level what they thought happened before this scene, students thought that the man was a slave and that he was running away. When asked about their feelings about the scene, students seemed to be able to relate to the difficult life of the man.

After the Visual Thinking Strategy discussion, Heidi gave her students directions to choose to write a paragraph inferring what happened leading up to the painting or what happened after. They were given the option to write about the whole story as well. Students were asked to write their justification for their inference. Afterwards, they passed their paragraphs to their neighbor, and the neighbor had to paint the scene described in the paragraph. The technique of watercolor was discussed and demonstrated. For example, Heidi recommended not over saturate the painting with water. She advised her students to take care to keep watercolors clean so that muddy colors are not produced.

After painting, students were asked to show their painting to their neighbor, and they discussed if the scene painted matched what the first student had envisioned. The students talked about what could have been written about in more detail to help the student who painted be more accurate. Heidi noted that her students worked diligently for two days. They created beautiful watercolor images
that they were proud to share and now appear on the wall that takes up most of the
side of the classroom.

Assessment

As instructors, we have all experienced “teaching that did not stick” (Yenawine, 2014, p. 2). This is to say, instruction that wasn’t memorable. Heidi’s lesson was not a “tag on art project” (Tunks & Moseley Grady, 2003, p. 63).

Assessment here afforded this language arts teacher a window into her students’ understanding to help inform her next instructional steps. Students were provided with a rubric before they began to work that included consideration regarding their ability to justify their inferences, to include details in their descriptive writing and to use watercolors techniques correctly. For example, did they justify their
inferences and provide specific details in their writing? Did they use the whole page for their painting? Did they use their watercolors as directed (not over saturate the paper or muddy the paints)? Did their painting and writing address the subject matter?

As students were working, their comments about their thinking were noted. During this process student learning became visible and students were able to practice a metacognitive language for their thinking process. This assignment helped to answer the question, “What is the process of learning through art viewing and making?”

**Heidi’s Reflections about the Project**

Heidi has found that some of her students have a difficult time thinking beyond the literal level when reading. She wondered how art could help these students. What Heidi found was that viewing artwork motivated students to practice thinking on the inferential level; while painting gave students a new means to reveal what they had learned about inferential thinking. She believed this was the case, because they could see an image not just read about it. The visual helped the inferential process “click” for students. For example, students inferred that the black man was a slave who was escaping. This seems to be a justifiable inference given that students are immersed in multicultural literature in their language arts class. Therefore, they had given thought in the past to slavery.

The common core goal (CCSS.ELA---Literacy.R1.7.1 cited earlier) states that students need to cite several pieces of textual evidence to support their analysis of what the test says explicitly as well as inferences drawn from the text. The following
two examples show student thinking about the story. The students were able put themselves in the man's place in the boat surrounded by sharks. They were able to imagine a reasonable explanation for why the man was willing to take such a risk to free himself from slavery. The students had empathy for the man. One student wrote, that the man “had been through so much.” Another student realized that not all valiant attempts have happy endings.

He was a slave and he escaped from his master and found a boat to sail away and he took some friends and family with him and they died on the boat from shark and more came when they smelled blood.
Students internalized and practice academic vocabulary such as the word “inference” rather than simply thinking of taking a guess. Students also learned that if a writer only writes a one-sentence description, the reader is left with a lot of questions.
Heidi learned that a few students were too invested in their own idea to draw someone else’s description. Thus, these students painted their own description rather than their partner’s. Nevertheless, this was an opportunity for the teacher to ask the student to compare the written description with what was painted. A few pairs of students worked collaboratively, but they wrote their own paragraph and painted their own picture, the ideas were similar.

Heidi and Claudia recommend that this project take three class periods. One period was needed to introduce the project, provide the VTS discussion, and background knowledge about the painting and artist. One period was required to explain to students how to watercolor. For example, it was necessary for students to learn not to oversaturate their papers with paint. They also needed to understand the importance of keeping the paints clean, so that a muddy color would be
produced. (Although Heidi borrowed the paints from the art teacher, not all her students had art class, which is why the painting occurred in the language arts classroom.). She suggests that a whole class period is needed for students to write.

Heidi learned about her students as thinkers, writers, and artists, through this lesson. This teacher noticed the synergistic relationship between the painting and the writing. Students learned that if they only write a one---sentence description, that it is difficult for someone else to have enough details to paint an image that corresponds with what another person envisioned. She also observed that students learned academic vocabulary such as the word “inference” as opposed to “taking a guess” during this lesson.

Students enjoyed the painting and learned through this multimodal experience. One wrote,

I liked the whole process of the watercolor. It was a good project. I didn’t know how to do it at first but my teacher taught me. My story was about how a man was on the island and he found a boat and he got stuck out on the sea.

Heidi had the opportunity to learn about the importance of art in a student’s family life through this lesson. For example, a student told her, “I like painting because I like to draw a lot and paint, and my uncle was an artist. The writing part was helpful because it was telling you what happened in the painting.” Another student said, “I love the writing part and the painting part it was fun I would like to do it again. I learned to paint better.”
Some students’ work surprised Heidi and afforded her an opportunity to think about students in a new way. For instance, one student normally had a difficulty time engaging with assignments. However, Heidi said that he was “so zoned and eager to paint to completion. He was attentive to detail and even made cut outs to put on top of his painted scene.”
This gave her an opportunity to discuss mixed media in a piece of art. Several students displayed a style of painting that was unique. For example, a student painted a scene with a dark blue dramatic mood; while another student’s painting seem to tell a whole narrative.
One student's painting showed a light touch with paint and experiment with fading colors in the landscape and use of negative space.
Through this lesson, the grant’s goal of art integration in core curriculum subject instruction was promoted. This is because students responded to art, created art, and connected art to their lives, which are called for in the national art standard description of artistic processes and anchor standards.

**Next Steps**

The artwork in this lesson for middle school students and the inservice example provided teachers were from the canon of renowned paintings. What if more current and less well--known art were part of a VTS discussion? For example, view the You Tube of Mexican artist, Francis Alys’ *Paradox of Praxis I* (1997). In this short video, a man pushes a large cube of ice through a city’s streets. We watch as the ice melts and gets smaller and smaller until it is a small puddle. A teacher could ask the following sort of literal, inferential, and generalization questions. “What do
“Why do you think the man is doing this?” “What is the moral to this story?” A teacher could ask also “What do you think happened before?” What do you think happened after?”

Contemporary art, such as this example, serves as an entry point for promoting thoughtful discussions. Students are likely to be unfamiliar with this artwork because it is not iconic; therefore questions about it have not been settled. This is because there is “uncertainty about its status” (Tuazon, 2011). Thus, it promotes disruption and grappling. Contemporary art catches us off guard (Marshall & Donahue, 2014). It creates a stretch on a student’s part to navigate. Yet, we all have the capacity to wonder about the unknown. Dieter Ram, a designer reminds us in the May 2016 issue of Dwell magazine that, “The possibilities for innovation are not, by any means, exhausted” (p. 109). Thus, Robertson and McDaniel (2010) advise, “The future will offer much that is unfamiliar. Learning to think about new art will provide tools for adapting to all manner of future events” (p. 4). Fortunately, language arts educator, Linda Rief (2014) reassures teachers, that her students grow when they try something new.

In Conclusion

Language arts teachers may wonder “Why teach art when my students need to know how to read and write?” Kress (2010) observes that the affordances and limitations of a mode, this is to say, what a writer can represent in a poem is very different than what a sculptor or painter can represent in an artwork. Thus, as multimodal texts become the norm as a reading experience for students, educators need to expand their knowledge of how to support students’ ability to design,
interpret, and use multimodal texts in a variety of reading experiences (Serafini, 2014). Continuing to view the world only through words and print confines one’s thinking and constricts the forms of expression and interpretation available in today’s expanding visual culture.

Moreover, a plethora of research suggests that students who learn in the arts are more likely to succeed in school (Burnaford, 2007; Deasy, 2002; Hetland et al., 2007). Wilson and Cohen---Evron (2000) have found the benefit that underserved students gain from challenging integrated content. Schools where teachers implement arts---integrated curriculum have been found to increase test scores, with scores increasing for every additional unit of arts integrated into the curriculum (Burnaford, Scripp, & Paradis, 2012).

Perhaps, ironically, Thomas Lawson, dean of the School of Art at Cal Arts said, “We are looking for the kind of kids who didn’t quite fit in at high school” (cited in Thornton, 2008, p. 63). Eisner (2004) writes, “Academic schooling would do well to look more like the processes the arts celebrates. In the current educational policy climate we have it upside down. The arts are not marginal niceties; they should be regulative ideas for all we do”. Art making is important precisely because being thrown off center gives students the opportunity to “have wonderful ideas” (Duckworth, 2006). Because we see learning as a social---constructivist process, making art adds value because making art gives students an authentic experience on which they may reflect, before, during, and afterward. VTS is a rich and complex approach to teaching and learning that not only aligns with new initiatives in
education that prioritize conceptual and procedural skills but will contribute to education's transformation (Marshall, 2014).

References


**Additional Resources**


http://www.vtshome.org