



VTS Research and Theory

VTS is named in honor of Rudolf Arnheim whose work in Gestalt psychology led him to write convincingly about the connection between visual perception and thought—"visual thinking" as he called it. In Arnheim's useful view, identifying what we see is an act of cognition. We think even as we sort out what we see. VTS builds on this premise: using visual art to teach thinking.

In the interests of being student-centered, VTS also takes into account the developmental stages first articulated by James Mark Baldwin and documented in detailed research by Jean Piaget. One key principle, acknowledged by others, including Russian psychologist Lev Vygotsky, is that we accommodate only what is within our capacity to grasp. We can take in information and ideas that are beyond our natural range, but we cannot put them to use independently unless we are ready. Learning occurs, then, in increments that relate to the developing interests and capacities of the learner.

Furthermore, both Piaget and Vygotsky proved that learning occurs from interactions with the environment—also cited by John Dewey and Jerome Bruner. Vygotsky, especially, drew attention to how the social environment—interactions with people—produces growth. He specifically demonstrated how the help of more capable peers—those who operate within the same framework as the learner but with greater abilities in certain areas—enabled learning. He thus helped explain the powerful role of other children in teaching their siblings and classmates, and why sensitive teachers or parents take cues from the learner as they help the child grow. All of these developmental issues are key tenets of the VTS.

Vygotsky further influenced VTS because of his insights into the relationship between language and thinking. His experiments made it clear that thinking requires language. He suggested that children must develop their speech in order to think and understand complex concepts. VTS, therefore, encourages students to talk, using discussion as a key tool for learning to think.

To a greater extent than these other research-based theories, VTS builds on the work of Abigail Housen, a cognitive psychologist whose focus is what she calls "aesthetic thought." Because her work is less well known than that of fellow scholars mentioned above, we describe it in some detail below.

In the mid-1970s Housen began studying what people think and say when looking at art. Noting differences between people without experience and those with a great deal, she set

herself to the task of coming to understand the changes in thinking that occur given experience with art over time.

As she did this, Housen was able to document the array of thoughts that art provokes, discovering it to be a very rich fabric. Even beginners use a range of observations to draw conclusions that are full of associations, memories, facts and emotions. The complexity of the thinking elicited by art also intrigued Housen because of the concern in education for developing critical and creative thinking. She saw a deep correspondence between aesthetic thought and the skills that educators sought.

Housen began her research by observing the behaviors of museum visitors, and soon decided she wanted to know what thoughts motivated the behaviors she witnessed. As her interest built, she realized that understanding the spectrum of viewing would involve studying people of diverse ages, backgrounds, education and economic levels, not just those who go to museums.

Over time, she developed her primary data collection tool: a non-directive interview. Participants are asked to simply talk about anything they see as they look at a work of art, saying whatever comes to mind. There are no directed questions or prompts to influence the viewer's process. Called the Aesthetic Development Interview (ADI), this tool provides Housen with a window into a person's thinking.

In order to analyze ADIs, Housen breaks them into thought units that are then examined. During her initial research, Housen had found 144 different kinds of thoughts expressed by the universe of people interviewed. She organized these thoughts into thirteen domains, each containing precisely-described subcategories. Each interview can therefore be coded, unit by unit, according to kinds of thoughts contained. Interviews are often examined by two independent coders to insure reliability and consistency, and the coding is then charted graphically by computer to enable a representation of all thoughts as well as the depiction of their overall pattern.

Housen also studies each interview as a totality to see how individual thoughts flow and fit together. Finally, she cross checks all of this with demographic, attitudinal and biographical information about each subject, as well as their responses to specific questions.

To date, Housen and her associates have analyzed over 6,000 ADIs taken from individuals ranging from six-year-old children to eighty-something adults of both genders. These people run the spectrum in terms of art experience, race, ethnicity, education, and economic status; a wide variety of art has been used. The categories of thoughts Housen defined in her early research are found in interview after interview, including her studies of the visually-impaired, of

urban and rural Americans in the United States, and of viewers in Russia, Lithuania, and Kazakstan. Her original coding manual holds up robustly.

During twenty years of data collection and analysis, Housen examined many other scholars' writings on aesthetics and perception and found that her insights resonated with the findings of others, although her data were more comprehensive. She concluded that a stage theory (often resulting from research focused on human development) could be applied to aesthetic change. She identified five distinct patterns of thinking that occur in the trajectory of growth when looking at art, which she describes as Aesthetic Stages. Therefore, as a result of the coding of an ADI, each interview is assigned to one of the following patterns:

Stage I

Accountive viewers are storytellers. Using their senses, memories, and personal associations, they make concrete observations about a work of art that are woven into a narrative. Here, judgments are based on what is known and what is liked. Emotions color viewers' comments, as they seem to enter the work of art and become part of its unfolding narrative.

Stage II

Constructive viewers set about building a framework for looking at works of art, using the most logical and accessible tools: their own perceptions, their knowledge of the natural world, and the values of their social, moral and conventional world. If the work does not look the way it is "supposed to"—if craft, skill, technique, hard work, utility, and function are not evident, or if the subject seems inappropriate—then these viewers judge the work to be "weird," lacking, or of no value. Their sense of what is realistic is the standard often applied to determine value. As emotions begin to go underground, these viewers begin to distance themselves from the work of art.

Stage III

Classifying viewers adopt the analytical and critical stance of the art historian. They want to identify the work as to place, school, style, time and provenance. They decode the work using their library of facts and figures that they are ready and eager to expand. This viewer believes that properly categorized, the work of art's meaning and message can be explained and rationalized.

Stage IV

Interpretive viewers seek a personal encounter with a work of art. Exploring the work, letting its meaning slowly unfold, they appreciate subtleties of line and shape and color. Now critical skills are put in the service of feelings and intuitions as these viewers let underlying meanings of the work—what it symbolizes—emerge. Each new encounter with a work of art presents a chance for new comparisons, insights, and experiences. Knowing that the work of art's identity

and value are subject to reinterpretation, these viewers see their own processes subject to chance and change.

Stage V

Re-creative viewers, having a long history of viewing and reflecting about works of art, now “willingly suspend disbelief.” A familiar painting is like an old friend who is known intimately, yet full of surprise, deserving attention on a daily level but also existing on an elevated plane. As in all-important friendships, time is a key ingredient, allowing Stage V viewers to know the ecology of a work—its time, its history, its questions, its travels, its intricacies. Drawing on their own history with one work in particular, and with viewing in general, these viewers combine personal contemplation with views that broadly encompass universal concerns. Here, memory infuses the landscape of the painting, intricately combining the personal and the universal.

Significant to understanding aesthetic development is that growth, while related to age, is not determined by it. In other words, a person of any age with no experience with art will necessarily be in Stage I. An adult will not be at a higher stage than a child simply by virtue of age or education. Exposure to art over time is the only way to develop. Without time and exposure, aesthetic development does not occur.

Over the course of her studies, Housen has found that most interviewees are beginner viewers, ranging from Stages I to II or II/III (which is a transition between two stages, II and III). Even among frequent museum-goers, there are relatively few people who have had sufficient interaction with art to have developed beyond the understandings of Stage II/III.

Over the course of Grades 3-5, VTS is designed to address the interests and strengths of viewers who start in Stage I and work their way toward late Stage II. VTS follows their developmental arc, supporting and challenging students appropriately. For example, VTS emphasizes narrative art at the outset, to make the most of beginning viewers’ storytelling capacity. The questions are designed to feel natural to the students at a given moment and also to provide a task that they are ready to learn. (In Grades 6-8 we will pick up where 3-5 leaves off and address students’ analytical capacities and their growing curiosity toward additional factual data.)

In order to determine if VTS accomplished growth in aesthetic thinking, ADIs of experimental and control students were collected over a five-year period in multiple sites in the US and abroad. The ADI findings were combined with data from other carefully designed instruments to study transfer of VTS-learned strategies and skills to non-art viewing. In one instance, teachers learned to analyze student writing samples to assess skills observed in class discussions. The transfer study also relied on a second non-directive interview, focusing on an



object such as a fossil. A method of analyzing these enabled Housen to document transfer, something that is difficult to measure.

Recent research by Housen and DeSantis shows students first demonstrating increased skills in observation and supportive reasoning. With time, students show significant increase in speculative thinking and the consideration of multiple possibilities.

Housen strongly feels that changes in thinking occur both because the VTS method works and because of art itself: art juxtaposes meanings that are recognizable and clear with those that are ambiguous and layered. Similar growth, she feels, would not occur if another class of objects were substituted. Fossils or a pair of calipers, for example, ask to be identified specifically. Art, on the other hand, contains more than one right answer and so considering its possible interpretations is an inherently natural and meaningful experience.

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