

**Report on the Visual Thinking Strategies Implementation and Assessment Project at**

**Bingham Memorial School, Cornwall, Vermont**

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Bingham Memorial Students at Middlebury College Museum of Art

*VTS has influenced my teaching in that I expect children to back up/support their thinking with evidence. I see the value in stepping back and letting kids develop and build off their own ideas. It has also reinforced the belief that children learn from each other. In VTS, children listen to each other and build off of one another's thoughts. They come up with thoughts and ideas that they may not have come up with on their own. These techniques are also evident during book talks in reading and math problem solving and discussions.*

### ***Introduction***

The *MiddArts: Learning through the Arts Program* is an arts education partnership between Middlebury College and the Addison Central Supervisory Union (ACSU). After a successful three-year Visual Thinking Strategies (VTS) implementation and assessment project at Ripton Elementary School,<sup>1</sup> *MiddArts* introduced VTS school-wide at Bingham Memorial Elementary School in Cornwall as part of a three-year implementation plan in August 2008.

VTS was created by Abigail Housen, Philip Yenawine, and their colleagues, and is based on Housen's Stage Theory of Aesthetic Development. VTS is a student-centered curriculum and teaching method that uses carefully selected works of art to build the capacity to observe, think, listen, and communicate. VTS lessons consist of image discussions that are facilitated by classroom teachers using carefully researched, open-ended questions. These questions, designed to decode meanings in works of art, constitute a teaching and learning strategy that can be applied to non-art subject areas and objects.

Bingham Memorial was selected as the second model school for implementing VTS by *MiddArts* for several reasons:

- the previous experience of several of the teachers with VTS;
- the presence of Stephanie Gallas, ACSU Arts Educator and VTS Teacher Leader, on staff as art teacher;
- the majority of the faculty's agreement to mentor Middlebury College pre-service teachers;
- the recommendation of ACSU Associate Superintendent Jan Willey;
- the small size of the student body.

### ***Implementation Component***

The three components of the implementation were:

- Three-year school-wide VTS implementation with museum visits;
- Three-year VTS assessment with an emphasis on supporting teachers' ability to assess changes;
- Three-year mentoring of preservice students.

Bingham Memorial is a K-6 Elementary School with 84 students in 6 classrooms. Teachers who participated in the VTS implementation are: Lisa Beck, Linda Brown, Stephanie Gallas, Janne Giles, Andrew Hirsch, Dawn Mayer (Years II and III), Jennifer Moykens (Years I and II), Susan Sears, Maddy Ward (Year III). Sandi Olivo, Curator of Education, Middlebury College Museum of Art and VTS Trainer, and Stephanie Gallas implemented the sequential VTS training at Bingham Memorial Elementary School. Ms. Gallas was also responsible for data collection and observing and coaching Bingham Memorial teachers throughout the implementation and assessment project.

In addition to the initial training and assessment workshop teachers participated in regularly scheduled individual debriefings with Ms. Gallas. They also attended 4 regularly scheduled staff debriefings of 2 hours each in Year I and II, and 4 staff debriefings of 1 hour each in Year III. VTS lessons were videotaped and used to identify areas of student and teacher growth (see *Assessment Component*) and areas for improvement of VTS practice, such as incorporating more conditional language. One teacher wrote that “[i]t’s rare in education that we have an opportunity to reflect on our practice!” At a staff debriefing at the beginning of Year II teachers identified the goals of focusing on increasing linking and framing of student comments. Teachers also began partnering with a colleague to share a lesson, observe and debrief.

Overall staff found time commitment increasingly difficult in Year III, especially for the writing of the reflections, although they remained aware of the importance. One teacher commented: “My least favorite part of VTS is writing the reflections. I understand and appreciate their importance and value, but for many reasons I never

seemed to complete them in a timely manner.” During a taped staff debriefing – which in response to teachers’ requests replaced one of the written reflections in Year III – teachers discussed the challenges of writing the reflections. One said “[it]’s a sad state of our profession...We don’t have that built in as a regular routine...We’re just programmed after 100 years, you finish one lesson you get ready for the next.”

There was some staff turnover during the implementation, as well as some new students entering the program. An unexpected development was the enrollment of a new student in Year III who had previous VTS experience. His teacher wrote: “I also expected I would need to explain VTS to a new student, but imagine my surprise when he said, ‘Oh it’s VTS, that’s Visual Thinking Strategies. I did that in my old school in Seattle, WA.’ He is a perfect addition to this class in regard to his background knowledge of VTS and his interactions.”



Bingham Memorial School Teachers

### ***Museum Visits***

Museum visits are a key component of the Bingham Memorial implementation. During each visit students participated in image discussions and sketched. Stephanie Gallas wrote the following about the Year III museum visits:

This year I worked with five Cornwall classes in the museum: K, 1, 2, 5 and 6.

Students in the younger classes all viewed a large permanent piece, the Assyrian Relief. Typically, when less experienced viewers spend time with this image their response is predictable. They focus on the large central figure, his importance and dress, what he holds in each hand and what he might be doing with these objects. Cornwall students, even kindergarten viewers, always take their observations beyond these immediate details. They speculate about the setting, the surrounding arbor, the “writing” and beyond into the various options of how this work might be made or how something of its grand size could have been moved. First grade students went even farther, layering and building possibilities based on each others observations, bringing in language of place, character, time which required me as the facilitator to “step up my game” in order to keep pace with them. This discussion went on enthusiastically for almost 20 minutes. We needed to stop because we still had two more images to visit. I facilitated the next two as well. The last, a small Japanese print was especially challenging. We had avoided bringing some groups to look at this image because of its small size. The extra effort needed to find the details often seemed to be too much, even for older students. First graders were undaunted by this. The smaller the detail, the more willing they were to look more and more deeply. They jumped right in to the action, the conundrum of whether the table had legs or was moving alone, what the occasion might be and where—looking beyond the normal tolerance of a less experienced viewer and into the smallest details of the setting, wondering about point of view.

Cornwall second graders viewed a different small print, and again surprised me. They went beyond the first impression (a cloak covering only one person) looking more carefully, and solved the mystery (a group of feet under what at first appeared to be a cloak covering only one person). They delved deeply into the setting, the season, the weather, and the wildlife. In both of the above visits evidence was offered routinely without the need for the second question.

The Cornwall fifth grade is a large and very articulate group. Classroom VTS discussions can be frustrating for them because they don’t get called on very often and they always have a lot to contribute. When they come to the museum the class is split into two groups and everyone has plenty of opportunity to contribute multiple observations. So enthusiasm is high. These students readily offer reflections on setting, character, time period and point of view. The greatest part of seeing any Cornwall student in the museum, but especially these 5<sup>th</sup> (now 6<sup>th</sup>) graders is their total ease. They know how to enter into an image and many could probably lead and or participate in a discussion just among themselves

The sixth grade visit this year was puzzling. The group was smaller than usual, as many were absent from school. Their discussions were flat, did not build. I do not attribute this to the facilitation—all of us were skilled. Their teacher seemed to think that perhaps the images didn’t appeal to them, which is possible, but these were the same images used for similar groups for all the school visits and we did not experience the same results. The only thing I

could think of was the fact of the large number of missing students, some of whom were the ones who often spark their classroom conversations.

ACSU has a two-day district arts festival at the end of May, which is held at the Mahaney Center for the Arts. Students participate in many workshops throughout the day. One of the offerings this year was a visit to the museum to see a special exhibit, *Fairfield Porter: Raw—the Creative Process of an American Master*. Cornwall first and second graders both visited. I led one facilitated discussion, which, as always, was very rich. What was really striking was how these young viewers navigated the rest of the exhibit. They moved from area to area with incredible focus, frequently discussing with each other or remarking to me the similarities they could see among the different stages of an image; for example studies that were on display of a larger more finished piece, or the curious similarity of a Velasquez drawing in one small case to not only the drawings that it inspired, but to its appearance in the image that we had discussed. They loved seeing similar people recur in various pieces and discussed who these people could be. They loved the exhibit of his sketchbooks, again recognizing in them parts of other works on display, and could relate this to their own love of their school sketchbooks, which they always use following a VTS discussion. This independent and confident viewing of the exhibit was a perfect example of the way that their immersion in VTS carries over naturally in the museum setting.

Sandi Olivo shared the following observations from the perspective of the Middlebury College Museum of Art:

- We have seen significant development in the Cornwall students' ability to observe and discuss a wide range of art in an equally wide range of mediums with increasing sophistication during their Museum visits for the *Thinking Through Art* school program [over the past three years];
- Just as teachers in the classroom have often observed that students apply their critical thinking skills developed during VTS discussions to other areas of the curriculum, we have also seen students apply their VTS observation and discussions skills during their Museum visits for other programs;
- Even students with only one or two years of VTS have been comfortable responding to and discussing art they see during their Museum visits;
- We have observed students visiting the Middlebury College Museum of Art with and giving "VTS tours" to their families. One Cornwall mother told us that her daughter led them through the Musée D'Orsay in Paris

and engaged everyone in the discussions about the art on they were seeing. The mother was convinced that this was due to VTS.

Both of these reports testify to the impact of regularly scheduled museum visits as part of sequential school-based art viewing program. Bingham Memorial students were given the opportunity to develop a relationship to, and a level of comfort with, a museum. Teachers wrote of the importance of the visits to the Middlebury College Museum of Art for themselves and their students. The museum component of the Bingham Memorial implementation appears to have achieved the *MiddArts: Learning through the Arts'* goal of developing a sustainable museum-school partnership.

In addition to working with *MiddArts* school teachers, Olivo directs the Middlebury College Museum Assistant Program. Participating students are trained in VTS, and facilitate VTS discussions with school groups in the galleries as they learn how to develop programs for young visitors.



VTS discussion facilitated by a Museum Assistant at Middlebury College Museum of Art

## **2. Assessment Component**

Central goals of the project were to support teachers' abilities to observe and document VTS-supported changes in their students' thinking and communication skills, as well as to support in-depth reflections on their teaching practice. The following goals were identified. Teachers will:

- Identify, document, track, reflect on, and analyze changes in student thinking (such as making increasingly detailed observations, providing more supporting evidence for opinions, and increasing speculation among possibilities);
- Identify and study improvements in student communication (such as listening to one another, building on each others' comments, and constructively articulating agreement or disagreement);
- Understand the correlation between the VTS teaching method and the development of the above skills;
- Note skill changes not only within the VTS classes but also when transferred to other disciplines;
- Establish the correlation between skills fostered by VTS and the Vermont State Standards, which address the advancement of thinking and communicating.

While developing and supporting teacher understanding of the impact of VTS on students' viewing, thinking and critical thinking skills is a central component of VTS programs, in order to meet the above-outlined goals the assessment component played a larger than usual role at Bingham Memorial. As in previous VTS assessment projects, each Bingham Memorial teacher was asked to select three students for closer observation, one each from the high, middle, and low range of abilities represented in their classrooms, and a training program was developed. The assessment component included:

1. Assessment workshop
2. VTS trainings and group debriefings throughout each school year



3. Teacher reflections
4. Collecting student writing samples and Aesthetic Development Interviews<sup>2</sup>
5. Observations with co-teaching and individual debriefings and reviews
6. Videotaping of VTS lessons and reviews
7. Presentation of Findings to *MiddArts* teachers and administrators

The introductory assessment workshop on October 30<sup>th</sup>, 2008, provided an overview of the data collection tools used to evaluate VTS programs. The goal was to provide teachers with a set of tools that would allow them to find concrete evidence of student behaviors such as: learning to support and respect others' opinions even if they disagree; listening and attending better to tasks at hand; using more descriptive language; and transferring VTS skills to other disciplines. The VTS assessment tools introduced to Bingham Memorial teachers and addressed in this report are teacher reflections, Aesthetic Development Interviews (for pre-writers), student writing samples, and videotapes. Teachers reviewed and discussed the collected data in debriefings. Examples of students' aesthetic and critical thinking from Year I were compiled and presented to staff in August 2009, and from Year II in August 2010.

- 2 Aesthetic Development Interviews, developed by Abigail Housen, are non-directive interviews that involve showing subjects a reproduction of a work of art and asking them to talk about it as though thinking out loud.

### ***Teacher reflections***

Regular and ongoing reflections by teachers are an essential part of VTS assessment. Teachers are encouraged to keep track of student comments, group interactions, their own practice, and the transfer of VTS teaching strategies and VTS-supported skills to other areas. These reflections provide documentation by individual teachers of changes in thinking, viewing, and communication skills in both larger groups and individual students.

The following are comments on changes in student and teacher behaviors from Bingham Memorial teachers' written reflections. They illustrate their ability to meet the professional development goals identified above, such as identifying, documenting, and analyzing changes in student thinking and communication, and

understanding the correlation between the VTS teaching method and the development of VTS-supported skills across disciplines.

### *Viewing skills*

Year I: I also loved being able to really listen to my students. I think they are doing a great job looking at a variety of art pieces. They amaze me with their insight and comments. I also think they are respectful to others – they listen and they agree or politely disagree.

Year I: Overall, I feel that I am seeing a nice progression in their viewing skills. They all seem to be able to offer an observation with evidence to back it, and with further questioning can add a more meaty piece of evidence. Speculation is beginning to grow; in other words more than just a handful of students are using comments such as maybe, might be, I wonder, etc.

Year III: The images were more complex this year [Year 3 Curriculum] and the students enjoyed the challenge of trying to make meaning. They often looked deeply and observed closely to find relationships and connections. The students got very good at speculation and used many words like “possible” and “might.” There were a few new questions introduced this year that the students adopted and made their own. They would use these questions with out prompting when analyzing the artwork. Setting and contrasts were especially important for the students.

Year III: The contrast question is a refreshing way to look at art and is very open ended. Students compared elements such as facial features, skin color, shoe types and size of figures. Students who typically don't share a lot were motivated to share when they thought about the art in a new way.

Year III: One student brought up the idea of perspective in that maybe this was actually a mirror reflecting the image back to us. He thought this because of the direction the artist was looking in. This idea really prompted students to consider this possibility and required them to change their perspective. It was a very interesting idea and task!

### *Communication/Thinking Skills*

Year I: Students definitely began to consistently make supported observations and many moved into speculative observations. It is great that students “think out loud” because all students benefit from hearing other's thoughts and then begin to “think out loud” in the same manner. I think my students are really

great at building on one another's ideas. The discussion becomes so much richer.

Year II: They are also able to accept the observations/opinions of others. The students are able to agree and disagree with their peers with respect. They have also learned that with closer examination and listening to others, they may also disagree with their own thoughts.

Year II: I have seen students mature in the way in which they share in class discussions. They use more sophisticated language.

Year II: They really know how to listen to one another and are comfortable and confident changing their thinking without feeling like there is something wrong with it. I find myself linking student ideas more in other subjects, particularly math. I also see students being more tolerant of other's ideas and recognizing that they don't all have to agree. It's okay to have your own idea or thought about something.

Year III: In VTS, children listen to each other and build off of one another's thoughts. They come up with thoughts and ideas that they may not have come up with on their own.

### *Critical Thinking Skills*

Year II: I enjoy paraphrasing the students and feel that I can accurately summarize their ideas. I know that this helps to validate their observations and allows them to see multiple possibilities. I also feel that the students accept multiple viewpoints. I am hearing much more not committed language from the students. For example I hear the words possibly, might and could be. This language is something that I will continue to support and reinforce.

Year II: A wonderful calm spirit prevailed as we began the discussion and stayed with the group throughout the experience. After we were finished (every child offered at least two ideas!) I recalled that most all the children offered evidence to their observations without being asked "what do you see that makes you say that?" Again, this speaks to the growth of the children over (what I see as a) relatively short amount of time. I was amazed at the new things that this class discovered while discussing this image.

Year III: The children continue to back up their opinions with evidence. They know this is part of the VTS routine. The students get their evidence from the setting as well as perceived body language of figures in the image. They use statements such as "I believe this is a poor family, because the man's shirt is

torn” or “I think they are sad, because the girl is leaning into her dad like she is crying and the dad is frowning and his head is down and tilted.”

Year III: Much discussion about what might be a river or some water source flowing along the road. “Maybe it goes along the road and around the corner by the houses and then back around by the garden in the front right part of the image.” “Maybe there is more village beyond what we can see.” “Maybe it is a vineyard.”

### *Transfer of VTS Skills*

Year I : After looking at the writing samples from my classroom I was able to see evidence of increased supported observation and speculation. My students had had some prior VTS experience and already had an observation foundation and they took what they knew and expanded it. Their writing samples were just one tool that I used to assess my students.

Year I: Facilitating the VTS lessons and using the VTS philosophy in my classroom connected to other aspects of the curriculum. My students were required to complete a writing assessment task at the beginning and end of the year. Their responses were much stronger at the end of the year. The assessment asked the kids to use evidence from an image to help them support their thesis. The VTS skills that they developed over the year had a direct connection to their success on the district writing prompt.

Year II: This year I have been able to see my student’s observation skills transfer into many areas, especially in science. My children look closer and longer.

Year II: VTS helps develop thinking skills as students have the opportunity to actually “think before they speak.” They spend time planning what they want to say. This is helpful and transfers to other areas as students stop to “think before they speak” in math, reading discussions, etc.

Year II: Definitely we are seeing the benefit of encouraging students to defend their interpretations, no matter what they say. The focus on writing in all grades has valued the supportive details—support what you are saying with evidence in what you have read. In math, the correct answer is valued but the student who can defend that answer is seen to be performing at a higher level.

Year II: VTS develops thinking skills. Children are encouraged to take their time and also to listen closely to others. They make inferences, use deductive reasoning and are able to support their observations/opinions. These skills carry over into many areas of the curriculum including writing and reading comprehension discussions. I know that in the years to come, these children will continue to grow.

Year III: I see students able to make verbal as well as written supported observations in math, literature, social studies, science, etc. They initiate sharing evidence and justify their thinking, no need for me to prompt every

time! While we have always talked about finding evidence and justifying, this has always been a bit tricky for students. However, it now occurs regularly and naturally across the curriculum - it is becoming a habit.

Year III: I have noticed the students have moved from simply listing observations, to supported observation and speculation without my prompting. Their writing has improved across the curriculum, as they know the expectation is to write using this same (VTS) technique. Knowing this has caused them to take more time with writing and be more thorough in the thinking they record.

### *Growth and Transfer of Practice*

Year I: Overall, I feel that the program was successful for students and for me. It has given me time to reflect more on my questioning and discussion leading skills. I find myself using the phrase “What do you see that makes you say/think that?” across the curriculum in many different situations.

Year III: I am reminded of all the work we have done this year through the experiences of *Best Practice in Mathematics*. So many times over this year while we are sharing and discussing student work at the Data Projector, I can't help but see the connection to:

- What do you see that makes you say that?
- What more can you find?

These common questions are part of the fabric of our daily discussions across all curricula areas. When students make a statement such as, “that problem is like the problem we just did,”

I know that they are making connections between their math ideas and the ideas of another classmate. This linking occurs across all settings, so the language is consistent and therefore not only is the discussions more rich, but the thinking always goes to a deeper level.

Year III: VTS, along with a Math *Best Practices* course that I've been involved in, has influenced my teaching in many ways. Whenever I approach a new topic I introduce subjects using VTS questions or similar questions. The children become engaged more quickly when they've had the opportunity to problem solve on their own, be it a VTS lesson, a math word problem, or a science lesson. The VTS model also allows children to “enter the conversation” at their own rate, while still letting them know that their ideas are valued. While my I wouldn't say that my core values about teaching have changed, VTS has provided a vehicle for me in achieving my goals.

### ***Videotapes***

VTS classroom discussions were videotaped by Stephanie Gallas to provide opportunities for teachers to carefully - and repeatedly - observe VTS discussions in order to assess their practice and to mine the taped discussions for evidence of growth in their students and in themselves. Each classroom was videotaped three times annually.

Teachers mentioned the value of having taped VTS discussions of their practice to review:

The DVD does help because there's a tangible.

I feel I have improved in VTS techniques and find it helps to set specific goals for myself after each lesson. I will say setting goals is easier to do after I watch a video of me teaching a lesson. It's much easier to see the areas I need to focus and grow in.

The Bingham Memorial videotapes provide many examples of a wide range of viewing, thinking, and communication skills, and of an increase of these skills over the course of the implementation.

Excerpt from classroom discussion Year II:

I think that I disagree with [A] and [B] that that is an island, because it could be connected at the back, because you can't really see that part. And I think those people are doing that race thing like [C] said...Yeah, a boat race, and I think I see a church in the village.

Excerpt from classroom discussion Year III:

Student A: It looks like a woman is drenching her hair out, or whatever you call that, because she's, or not her hair her dress, because it looks like she's kind of twisting it and squeezing.

Student B: I disagree with A that it is a dress. I think it is a swimsuit, like older swimsuits they're like a dress, but aren't, and all matching. And it looks like the person that's sitting has a swim cap on.

VTS teachers frequently report that VTS allows students with learning and behavior challenges to participate in ways that they do not usually do in classroom discussions. The videotapes show how a Bingham Memorial student with a wide range of challenges actively contributed to VTS discussions over the course of the program. As

Jan Willey, ACSU Associate Superintendent of Schools wrote: “[f]rom my perspective as associate superintendent, I have been impressed with how the VTS process gives all students equal status in their classrooms. It truly levels the playing field, and I have seen struggling students respond beautifully to the VTS activities. They are able to shine in these discussions, and it is obvious that they feel great success. It allows for authentic discourse and all can participate on an equal footing.”

### ***Writing Samples***

*The connection to the writing process is also a great strength of the VTS process. In both Ripton and Cornwall, the increased performance in writing has been obvious. How nice that students get to write about art; something that excites them.*

Jan Willey, Associate Superintendent of Schools, Addison Central Supervisory Union

VTS has been proven to support the growth of critical thinking skills such as evidentiary reasoning, speculation, and elaboration. These essential learning skills transfer to writing. Writing samples were collected three times each year during the implementation, and teachers reviewed and discussed the samples.

The following are examples of VTS-supported skills from Bingham Memorial students' writing samples.

Year I Image: Winslow Homer, *Snap the Whip*



Year II Image A: Pablo Picasso, *The Saltimbanques*



Year II Image B: Edouard Manet, *The Railway*



Year III Image: Louis Moilliet, *In the Circus*



*Evidentiary reasoning*

It looks like spring or summer, because there are flowers, leaves on trees, grass, and no snow, and you wouldn't wear shorts in the fall or winter.

Winslow Homer, *Snap the Whip*



It looks like something in the background is burning, because I see smoke.

Edouard Manet, *The Railway*

I think the figure with the umbrella is a woman, because she has a dress on and long and curly hair that looks like it's in a bun.

Louis Moilliet, *In the Circus*

### *Speculation*

And maybe they're, the white flowers right there, maybe roses. And maybe in their garden they've been growing a long time.

Winslow Homer, *Snap the Whip*

I see what could be two men and a woman and what could be a man in front has a diamond on his forehead.

Louis Moilliet, *In the Circus*

### *Speculation with evidentiary reasoning*

It looks like it takes place in some desert like Baghdad maybe, because all you see besides the sky and figures is sand. I think it's sand because it has a light tanned color to it.

Pablo Picasso, *The Saltimbanques*

It looks like possibly there's something they're looking at, because four of them are looking or have their heads in the same direction along with their eyes.

Pablo Picasso, *The Saltimbanques*

Maybe they're dressed for something. Possibly church, because usually you wouldn't wear dresses all day for no reason.

Edouard Manet, *The Railway*

### *Elaboration with evidentiary reasoning*

I also found that the girl with red hair that could be a nanny is holding a book and she might be a teacher or is reading the book for the girl with the blond hair. What makes me say that is because here are no adults or parents and that she looks like a nanny.

Edouard Manet, *The Railway*

I think this is circus practice, because behind the curtains there is no audience...I think this is a circus because there are people that look like clowns and the animals are dressed in costumes.

Louis Moilliet, *In the Circus*

### *Observing and providing details*

There is something that looks like a barn, but if you can look closely you can see that there is a chimney, so it's probably their house, but I'm not sure because it's very small for those boys.

Winslow Homer, *Snap the Whip*

There are 2 grown-ups. One is quite plump and is dressed in a dusty red jester's hat and a white collared red clown's jacket. The other grown-up is very tall and is wearing a faded suit with triangles and faded black shoes.

Pablo Picasso, *The Saltimbanques*

We are looking down on a circus, but not a bird's eye view. We are looking through a room and through curtains to see the circus.

Louis Moilliet, *In the Circus*

### *Interpretation*

They don't look happy and maybe that might be because of the conversation they are having, and I think that because no one is smiling... There is one person in the corner who does not look like she is in that conversation, or even happy to be with them, because her back is to them and she is looking somewhere else like she'd rather be there.

Pablo Picasso, *The Saltimbanques*

There is a bird in this picture and also some monkeys. I believe the bird is an exotic bird that is kept for a pet, perhaps a cockatoo from Australia. They have that coloring. I think that the monkeys are mistreated; the big one is holding the little one to her in a protective way.

Louis Moilliet, *In the Circus*

### *Development of argument*

It looks like there are some boys playing tug-o-war. They look like boys because they have short hair and their clothes just look like boys would wear those clothes. It looks like they're playing tug-o-war because all of the boys are holding hands and some boys are running to the left and some to the right.

Winslow Homer, *Snap the Whip*

I think this painting is of the circus, because of the way the people are dressed. They're wearing things circus performers would wear, bright with lots of color. There's also a lot of circus animals like a bird and two monkeys. Another

reason I think it's a circus is because some of the people have on clown make-up.

Louis Moilliet, *In the Circus*

### *Multiple possibilities*

It must be pretty quiet, because the dog on the woman to the left's lap is sleeping or it's used to the sound. I think it's sleeping, because its eyes are closed and its body is straight on her lap.

Edouard Manet, *The Railway*

Behind the gate is a town, or just house. I think it's probably just one house and has a fence around it. A town probably wouldn't.

Edouard Manet, *The Railway*

### ***Student growth over time***

The following are writing samples from three Bingham Memorial students (an Aesthetic Development Interview is the first sample of Student A). These writing samples provide useful documentary evidence of growth in writing skills (for example: more complete sentences, increased detail) and thinking (for example: evidentiary reasoning, speculations, and multiple possibilities).

### **Student A**

#### **Year 1 pre/Kindergarten (Aesthetic Development Interview)**

Interviewer: Whenever you're ready O. you can talk to me about whatever you think of. O: People. And they, some seeds.

Interviewer: Yes. What are you looking at now?

O: There are some mountains. And there are some flowers.

Interviewer: Down here on the left. Yes. Where are your eyes now? O: The red house.

Interviewer: Mmm. Anything

else? O: I don't know.

Interviewer: Let your eyes move around. Is there anything else you can talk about? O: There is sky.

Interviewer: Where are your eyes now? O: I don't know.

Interviewer: Anything else? O: No.

Interviewer: Thank you, O.

### **Year III post/grade 3**

I think that the people and the animals are waiting inside for their act, because they are all in clothes that you wouldn't wear. I also think that there is a circus going on, because there is a clown. I think the clown is going up next, because he looks like he is getting ready. I notice a man looks like he is doing a magic trick.

### **Student B**

#### **Year I pre/Grade 3**

It's Fall. The people in the front aren't wearing footwear. It might rain. It's in the country. Most of the people are wearing suspenders. The people in the front are playing [tug-o-war]. They are tugging on each other.

#### **Year III post/Grade 5**

I think it is a circus, because there are many colors and circus people there, like a clown. I think the person is a clown (in the upper left corner), because he/she has face paint on and is wearing an outfit like a clown might wear. I also think there are two monkeys in the upper right corner that might be part of a circus act because they are dressed up with hats and they are all furry, like a monkey. There is also a circus act going on below, through the curtain. I think that, because there is what looks like another clown down there and some other performers. There is also a pink bird in the lower left hand corner and he/she is standing on a black wire. He/she might also be a part of a circus act because he/she is in a circus! There is an object in the upper left hand corner that looks like a megaphone because of its shape.

### **Student C**

#### **Year I pre/Grade 4**

In this image kids are running around. There's a small red house in the background and flowers and a mountain. All the boys are wearing hats.

#### **Year III mid-year/Grade 6**

I think it's a circus, because there is what looks to be performers weirdly and colorfully dressed. Also they're holding juggling balls or have pets. I see two monkeys and two birds. I think they either are bad performers or just starting their show, because there is only one person. There is a lot of colorful patterns. A lot of blue, red, white, yellow, and all made into patterned clothing or curtains. The two monkeys appear to be hugging or something close. There's a lot of different monkeys, but those two look to be the same kind, because they both are brown and both have a blue face. I see a woman holding an umbrella. I think it is a woman, because a while ago women would hold umbrellas to look good or something; rain, shine, inside or outside. She is also colorful, so maybe she is in the circus too.

### **3. Mentoring**

Mentoring of Middlebury College Education pre-service students was an integral part of the Bingham Memorial implementation. Gregg Humphrey, Lecturer in Education Studies at Middlebury College, reported:

"In many ways, [Cornwall] has been the ideal setting for my preservice college students to practice VTS under the guidance of enthusiastic and competent K-6 teachers. The unique professional development opportunity that we use in our MiddArts model, where the preservice and inservice teachers are engaging in VTS development together and in real time is at the core of what I love about the project. Our Middlebury College "J-Term" semester, where every year in our 4-1-4 system, students take only one course for four weeks in January, lends itself perfectly for such intense professional development. My "Children and the Arts" course in January, which is required for all Education Studies minors who might want to enter our K-6 licensure program eventually, has VTS as the core strategy for the visual arts and the required field placements provide many contact hours for each college student to spend many hours per week in a Cornwall classroom with an individual teacher. So over the course of several years, each of the Cornwall teachers become mentors to an education student teacher and in this way practice their craft in a collaborative setting. Each of the college students is asked to keep a sketchbook documenting their ongoing experiences as well as responding in their sketchbooks to several prompts regarding VTS. We also discuss efficacy and personal ups and downs in the ongoing seminars back on campus. Every teacher at Cornwall has been extremely helpful in welcoming my students and allowing them to practice VTS and other arts activities during our J-term."

A Bingham Memorial teacher wrote: "[I]t was also nice to have a J-term student observe. VTS was new to her so she was able to see the student responses from a different perspective."

### **Conclusion**

As this report illustrates, the data collected during the Bingham Memorial Elementary School implementation provides documentation of the growth of VTS-supported skills and transfer of those skills in students. It also provides examples of the growth of teachers' ability to identify and assess these learning skills, and of the growth and transfer of VTS practice. As one teacher wrote in her final reflection: "My how we've changed!"

At a recent ACSU K-8 administrators' meeting, Bingham Memorial Principal Denise Goodnow stated that VTS was completely aligned to the newly adopted Common Core State Standards (CCSS), because of its focus on critical thinking, student discussions and justifications, and its effect on student writing. This report illustrates how VTS can indeed support the goals of the CCSS, as well as the goals of the Vermont State Standards.

Bingham Memorial School is now entering Year IV of school-wide implementation and is committed to continuing VTS. The success of the VTS implementation at Bingham Memorial School represents the achievement of a major goal of the *MiddArts: Learning through the Arts* program: to provide a sequential school-wide art program with a sustainable school-museum partnership and strong professional development component.



*I love being in the [Middlebury College Museum of Art] with my class, alone, and feeling the beauty and relaxing, peaceful spirit that washes over us as we talk about the art and cozy in to sketch! –Bingham Memorial Teacher*

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Farm-to-School mural painted by Bingham Memorial Students