

What's Going On in this Tour?
An Evaluation of VTS-Based School Tours
Frye Art Museum
Summative Evaluation
New Directions Project
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Executive Summary

This report describes the findings of an evaluation of the K-5 school tour program at the Frye Art Museum in Seattle, Washington. These school tours observed in this study are based in the methods of the educational model of Visual Thinking Strategies (VTS), but take place during hour-long tours in the galleries, rather than repeatedly over longer periods of time, and are integrated with other questions, information, and activities developed specifically at the Frye. The findings reveal positive correlations between the use of VTS questions by gallery guides and desired student participation outcomes as well as positive correlations between those specifically developed non-VTS activities and the same desired outcomes. They also point to window of optimal group size for discussion and participation and suggest that certain types of discussion may be supported by certain content or media of artworks visited on a tour.

List of Key Findings:

- VTS use had a significant positive relationship with desired student outcomes
- Groups size was a major determinant of outcomes
- Use of additional activities had a measurable impact on entire group participation rates and on student deep participation
- Student outcomes were more frequent in the first group in the galleries
- Some art works result in desired outcomes more frequently

Introduction

This summative evaluation was conducted for *New Directions* in the Museology graduate program at the University of Washington. *New Directions* is an IMLS-funded project designed to train museum studies graduate students to understand, support and engage in audience research. A key component of the training is using museums as learning laboratories where students work with an institution to conduct audience research, under the guidance of evaluation mentors and support staff. In this case, the Frye Art Museum in Seattle agreed to partner with *New Directions* and allow three student evaluators the opportunity to design a research and execute a research study of their school tour program.

The Frye Art Museum utilizes the methods of Visual Thinking Strategies (VTS) in their school tour program and gallery guide training. This project was focused on museum school tours comprised of students from kindergarten to 5th grade and facilitated by VTS-trained gallery guides. These tours were observed and interviews with the gallery guides were conducted in order to examine what conditions produced high levels of participation in the school tours at the museum. In addition to informing the practices at the Frye, these can also be of use to other institutions employing VTS techniques with visiting tours and school groups.

Since the Frye Art Museum opened in 1952, its founding collection of late-nineteenth and early-twentieth century European paintings has been continuously on view. At present, the museum additionally hosts exhibitions of works by both internationally renowned and emerging artists and has an extensive list of public programs. The Frye's mission statement is as follows:

The Frye Art Museum is a living legacy of visionary patronage and civic responsibility, committed to artistic inquiry and a rich visitor experience. A catalyst for our engagement with contemporary art and artists is the Founding Collection of Charles and Emma Frye, access to which shall always be free.

The Frye Art Museum's school tour program employs VTS to facilitate students' personal discoveries of art, encourage dialogue among students, and strengthen their critical thinking skills. The primary goals of the school tour program include ensuring that students have a positive overall experience and participate in dialogue that demonstrates flexible thinking by articulating and supporting observations about artworks.

Evaluation Question:

Under what conditions are high levels of participation observed in VTS-based tours at the Frye?

Conditions

The observation instrument focuses on a set of variables, or conditions, including: what questions the gallery guide has asked and how many times she or he has asked them, whether or not an activity took place at a particular stop, whether or not the tour occurred before or after an art-making class, etc. Though our observation data cannot account for all the possible confounding variables that could affect participation in a tour, we can look for correlations between these conditions and observed participation.

High Levels

High levels of participation is defined both in terms of depth and distribution and will represent the top quartile of group participation as well as individual participation based on behaviors observed.

Participation

We will be looking at both depth and distribution of participation in our data analysis.

Depth of participation will be based on the way participatory behaviors have been organized in this study from those that occur on a more basic level such as raising hands and focusing attention on the artwork to what we have considered to be behaviors that demonstrate a 'deeper' level of participation such as disagreeing or revising one's own opinion.

VTS-Based Tours

'VTS-based tours' refers to the use of Visual Thinking Strategies in the school tours for K-5 students at the Frye. Since VTS is blended with other questions and activities on these tours, this study will not evaluate VTS itself, but rather the implementation of VTS within the specific context of the Frye's school tours.

Literature Review

Visual Thinking Strategies (VTS) is an educational model and curriculum that aims at enabling teachers to help students develop aesthetic literacy and critical thinking skills. Visual Understanding in Education (VUE) is the not-for-profit organization that promotes and advocates for VTS. It is the result of collaboration between Abigail Housen and her work on aesthetic development, and Philip Yenawine, formerly the Director of Education at the Museum of Modern Art. Their stated mission is as follows:

Our mission is to foster cognitive growth through interaction with art, and to boost academic achievement in every school where VTS is implemented, facilitating systemic change in how students learn and how teachers teach ("Mission and Philosophy," *Visual Thinking Strategies webpage*).

Housen identified five stages to aesthetic development through the use of open-ended Aesthetic Development Interviews, noting that most people, including the museum-going public, belonged to Stages I and II, which focus on storytelling and the beginnings of building a framework to view art. The VTS program is designed to fit this majority and to help develop their visual literacy. Several research studies have demonstrated that students in VTS programs increased their visual literacy, critical thinking skills, and respect for others' diverse views" (Simon, 2010, p. 153). VTS encourages a type of dialogue that can be later employed outside of the museum experience.

Through partnerships with various schools, VUE has conducted multiple evaluations that examine the impact of using VTS. For example, the evaluation of the Wolfsonian, Inc.'s *Artful Citizenship Project*, a three-year "arts-integrated social studies curriculum" based on the VTS, showed a clear relationship between visual literacy (as taught by the VTS) and academic skills, although the psychosocial competencies could not be measured accurately (Curva & Associates (2005).

The VTS program implemented in the San Antonio Independent School System was also a three year project focusing on grades three through five (DeSantis & Housen 2007). It was a classroom-based project, with ten VTS sessions being conducted by the teacher, and only the tenth being at a museum. The program evaluation found that students who participated in VTS had developed their aesthetic and critical thinking skills more than those who did not, and students who speak English as their second language were able to participate and grow in the VTS program. The researchers were unable to find any significant difference in the critical thinking skills until Year 3.

Because of these results, VTS suggest that the ideal for successful implementation is a school setting, a three-year commitment and support from all teachers in the school ("VTS Implementations Models – Visual Thinking Strategies").

At Charles D. Wyche Jr. Elementary School, where VTS was not used school wide, the large aesthetic and critical thinking skills development that normally is documented did not appear to have taken place, although "students who consistently engaged in

the activities of the study did show development in their abilities to articulate detail and interpretation in the artwork of others and their own art work” (Rosenkrantz, Mark 2005).

The Experience Music Project recently trained volunteers for *Taking Aim: Unforgettable Rock 'n' Roll Photographs Selected by Graham Nash* in VTS and encouraged them to approach visitors to start conversations as well as lead tours through the exhibition employing VTS. In that it represents a single exposure to VTS, this does have some parallels with the Frye Art Museum’s school tours, although visitors to the EMP/SFM were probably not going to *Taking Aim* to be introduced to this approach at looking at art.

VUE recommends videotaping of VTS sessions because this allows for a more holistic review of the session. With videotaping facial expressions and other visual cues are recorded, unlike in an audiotape where only what is said is captured. This issue will be discussed later in the limitations section of the report, as videotaping was not performed in this evaluation due to permission issues inherent in the context of the school tours.

In the San Antonio study, data collection techniques included “Pre- and post-VTS aesthetic development interviews (ADIs), questionnaires, museum biographies, material object interviews (MOIs), and writing samples” (DeSantis & Housen 2007). The examples in the *Highlights of Findings* of “supported observations”, “speculations”, and “elaborations or revisions” from the Aesthetic Development Interviews provide some insight as to what to listen for when coding the recordings from the Frye.

A study at Hebrew University (Camhi & Tsybulskaya, 2009) tested what happens to participants in guided tours when the guides first assess (using two different methods) the entrance narratives of their visitors and then make specific connections from these entrance narratives to the content of the tour. Behavioral measures and questionnaires both indicated that accessing and incorporating participants’ entrance narratives profoundly enhanced their experience. The enhancement was somewhat greater among visitors from the general public than among groups of university students.

A study on the impact of museum field trips by Martin Storksdieck at the Richard-Fehrenbach-Planetarium in Freiburg, Germany, with high school age students demonstrated that teachers and students experience field trips very differently and students are more likely to be influenced by their prior interests and willingness to learn than their teachers. Good field trip planning and follow up was also found to be lacking, which affected the student experience.

Sample Information

Audience

The elementary school students participating in the school tours were the primary audience and focus of this evaluation. The goal was to understand what factors are related to student participation as it was defined and outlined in the breakdown of the evaluation question, and in terms of the specific participation behaviors that were observed. The gallery guides who facilitate the tours, therefore, were the secondary audience because their behavior was seen as a possible factor in student participation, and their choices shape the tour.

Sample Size

68 elementary school students were observed, with a total of 276 tour stops. 19 interview sessions with gallery guides were conducted in order to supplement the depth of understanding of the observations and of what the gallery guides perceive to be happening on the tours.

Sampling Methods

Simple random sampling was used to select which student will be observed. A number was randomly assigned to each day there is a school tour and the data collector will observe the student that is in the position in line that corresponds to

that number as the group enters the galleries for their tour. For example, if the day's number was 1 then the data collector observed the first student in line, or the 'line leader' as they enter the gallery.

When there was more than one data collector observing a group, a second random number was generated. This method for sampling was selected because depending on the student's personality and class relationships students may choose to stand in different places in line. By always observing a student who chooses to stand at the front or back of the line we may skew our data towards a particular type of student.

Instruments

The observation instrument for the school tours was designed to measure and track an individual student's participation in the conversations occurring at each stop on the tour. It consists of four parts: independent setting variables, guide behavior, individual student behavior, and group behavior.

Independent variables related to the settings in which each tour took place were also recorded, including the grade of the school group, number of students, whether it is before or after the art lesson, which stop on the tour it is, and the title of the artwork. This information was used to determine what factors may effect student participation.

Guide Behavior was used to track how the gallery guide facilitates the conversation (what questions they ask) and any activities they may have employed (such as drawing your favorite sheep). Although our primary audience is the students, the gallery guides play an important role in facilitating conversations and encouraging participation. What they do does affect student behavior.

In the Student Behavior section, the individual student's participation was recorded based both on non-verbal (eyes on canvas, raising hand) and verbal behavior (agreeing, disagreeing, revising opinions). Agreeing and disagreeing, although similar in many aspects, were distinct categories on the observation instrument because disagreeing with another student's opinion might require a different comfort level than agreeing, and it keeps the dialogue open for more observations. In this way, participation behaviors were understood to represent a

kind of spectrum ranging from more basic to more complex or deep levels of flexible and critical thinking. The section for group participation at the bottom of the observation instrument (see Appendix A) included any kind of verbal participation by students and thus did not measure the depth of participation, but rather the distribution across the group.

The post tour interview with the gallery guides focused on how they perceived that particular tour and provide a space for them to comment on the students behavior, participation, and dialogue, as well as comment on any noteworthy aspects of a tour.

Results

In order to examine the depth of conversations taking place and how different conditions may lead to various behavioral outcomes, the different student behaviors were grouped into three types based on the level or depth of critical thinking they were taken to represent.

Type A: Raising Hand, Listing, Speculative Listing

Type B: Agreeing, Disagreeing, Providing Evidence

Type C: Building on Dialogue, Revising Own Opinion, Use of Conditional Language*

*Conditional Language is defined in this study as language that implies an understanding of the existence of multiple correct answers or options. Examples include: "might be," "maybe," and "could be."

Looking at the breadth of conversation taking place, group participation was tracked at each stop. We were recording to see how many of the students verbally participated, a number represented in this data as percentage of students participating per stop.

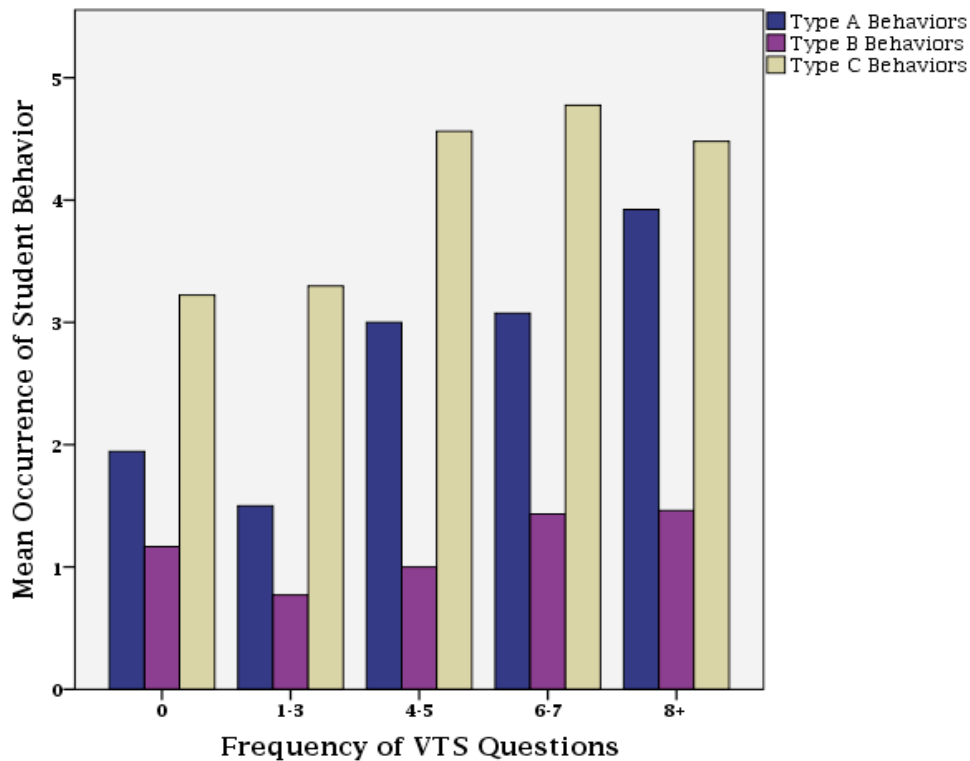
We observed that the number of VTS and similar questions used, the size of the group, time of the tour, and use of additional activities all impacted the students' levels of participation. Additionally, different works of art generated different types

of discussions.

VTS and Similar Questions

VTS Questions are defined in this study as the use of the three questions that characterize VTS practice (What’s going on in this picture? What do you see that makes you say that? And what more can we find?), as well as modified versions of those questions directed at the same goal of describing what is happening in the art work (“How do you think the horses are feeling?”), asking for evidence (“What makes you think the horses might be scared?”), and visually or audibly finding more information about the art work (“What else might the horses be thinking?”), were recorded. When the gallery guides asked four or more questions, the desired outcomes occurred most frequently. As the gallery guides continued to ask eight or more of the VTS and similar questions, a decrease in the amount of student participation is noticeable across all behavior types (See Figure 1).

Figure 1

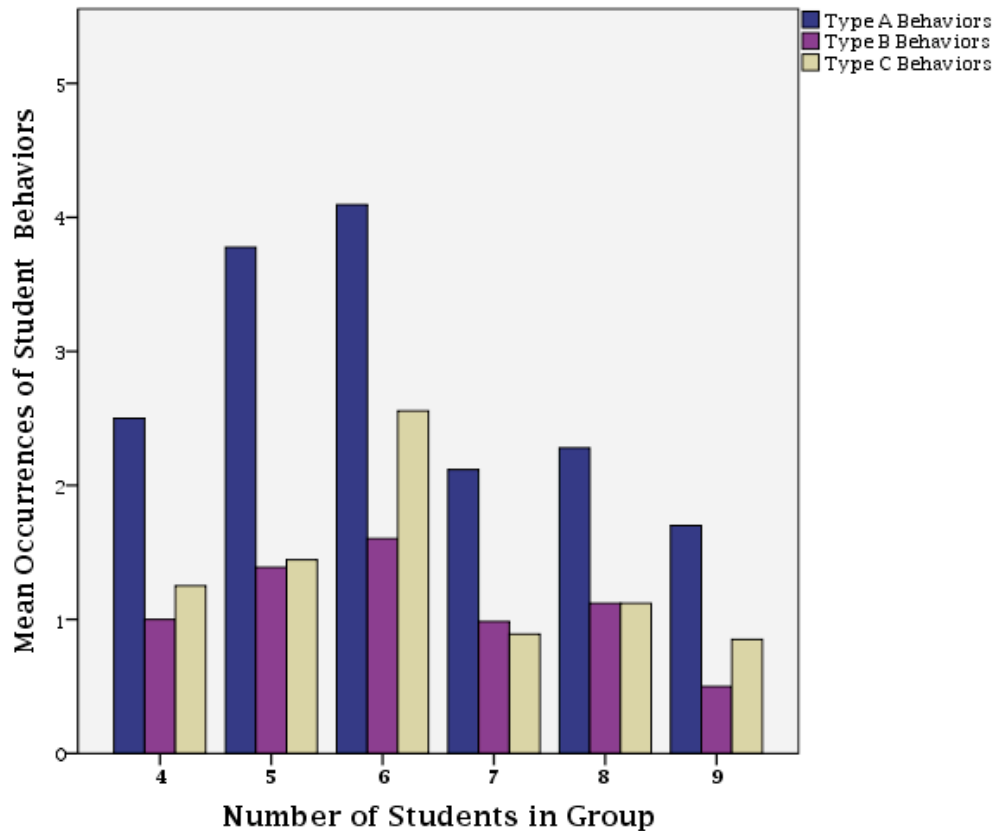


Gallery Guides commented that they would use non-VTS questions with works of art if they saw that the VTS questions were not generating discussion.

Group Size

Group size is a major determinant of outcomes. While groups with five to six students having the most desirable outcomes, there is a significant decline with seven or more students. There was a greater occurrence of all three types of participation observed in groups of this size (See Figure 2).

Figure 2



Gallery guides said that with larger groups it was more difficult to address the students by name and because they were unable to focus as much attention towards quieter students, and therefore were unable to draw them into the conversation as

easily.

Additional Activities

Activities that take place during the school tours include:

1. Pose or move like an animal in the art
2. Add an animal to the picture
3. Build a story
4. Draw your favorite part (usually of the story)
5. Memory Game/What can you recall after looking at the work of art for 30 seconds?
6. Find the differences in the works of art/parts of the work of art

Additional activities, including building stories about what is happening in the painting and physical actives, such as posing like part of an artwork, were positively correlated with group participation, as well as the depth of participation (See Figure 3). This was especially notable for type C participation behaviors (See Figure 4).

Figure 3

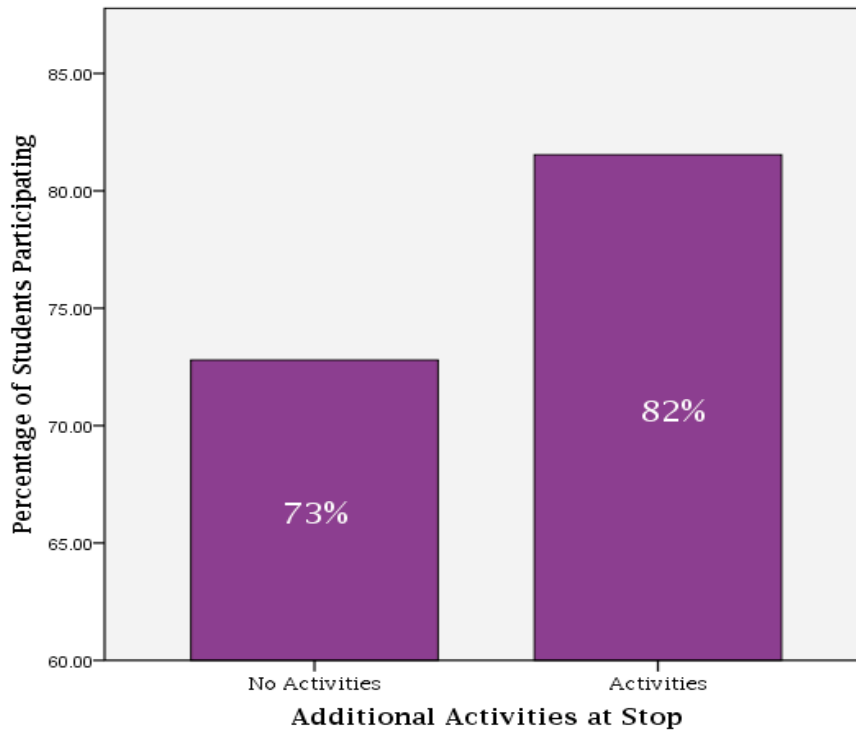
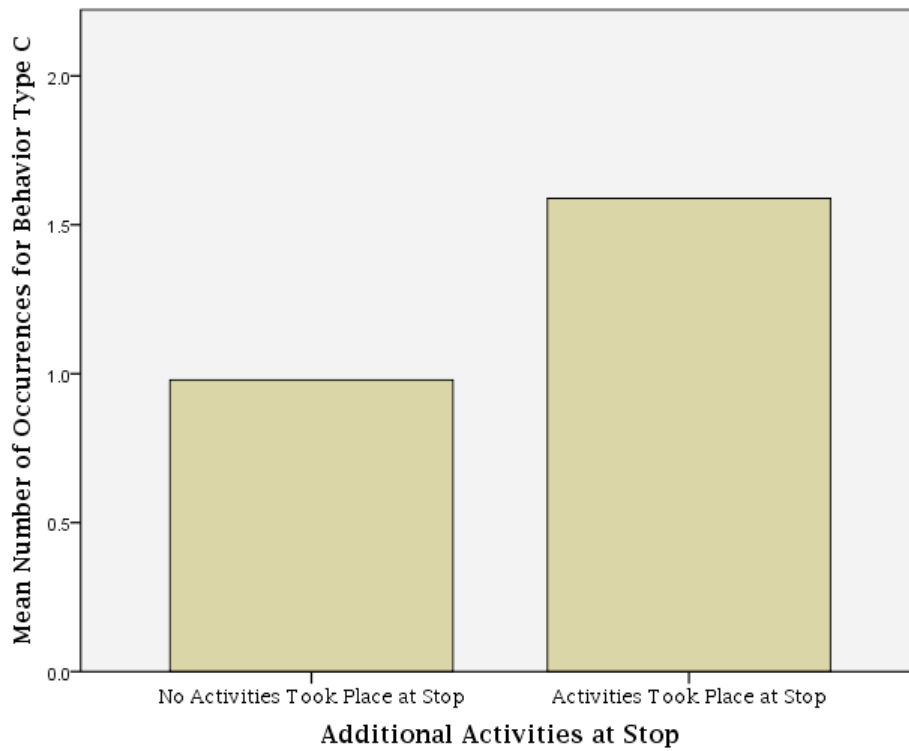


Figure 4



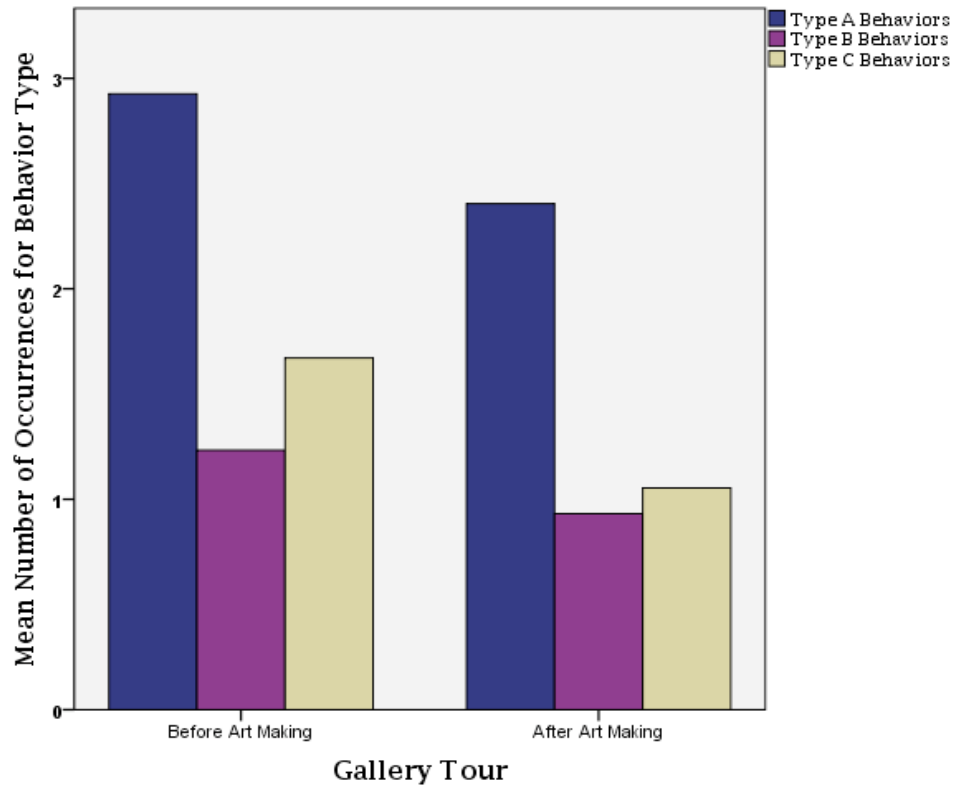
Many of the activities are designed to encourage all students to participate, including those who normally would not choose to speak in a group. Some gallery guides explained they would use the activities to encourage students to move around and become more engaged in the tour because the students were having trouble concentrating.

Time of Tour

Typically classes visiting the Frye Art Museum are divided into two halves. While one half tours the art galleries, the other participates in an art project in the Education Studio. After approximately 45 minutes the groups switch, with the group touring the art galleries in the Education Studio making art and the group that was originally making art tours the art gallery.

Although there was a greater range in the depth of behaviors for the first tour, on a whole the depth of participation during the first tour was on average significantly greater than the second (See Figure 5).

Figure 5



Gallery Guides observed that the second group in the galleries usually has more trouble focusing than the first.

Works of Art

Although we were not looking at the appropriateness of specific works of art for use in the VTS-based elementary school tours, we did observe different types of discussion taking place at different artworks, both in terms of depth as well as breadth across the groups (See Figures 6 and 7). While the following figures look only at the most frequently used works of art in the permanent collection, we observed the range of behavior types at both works of art in the Founding Collection

as well as in temporary exhibits.

Figure 6

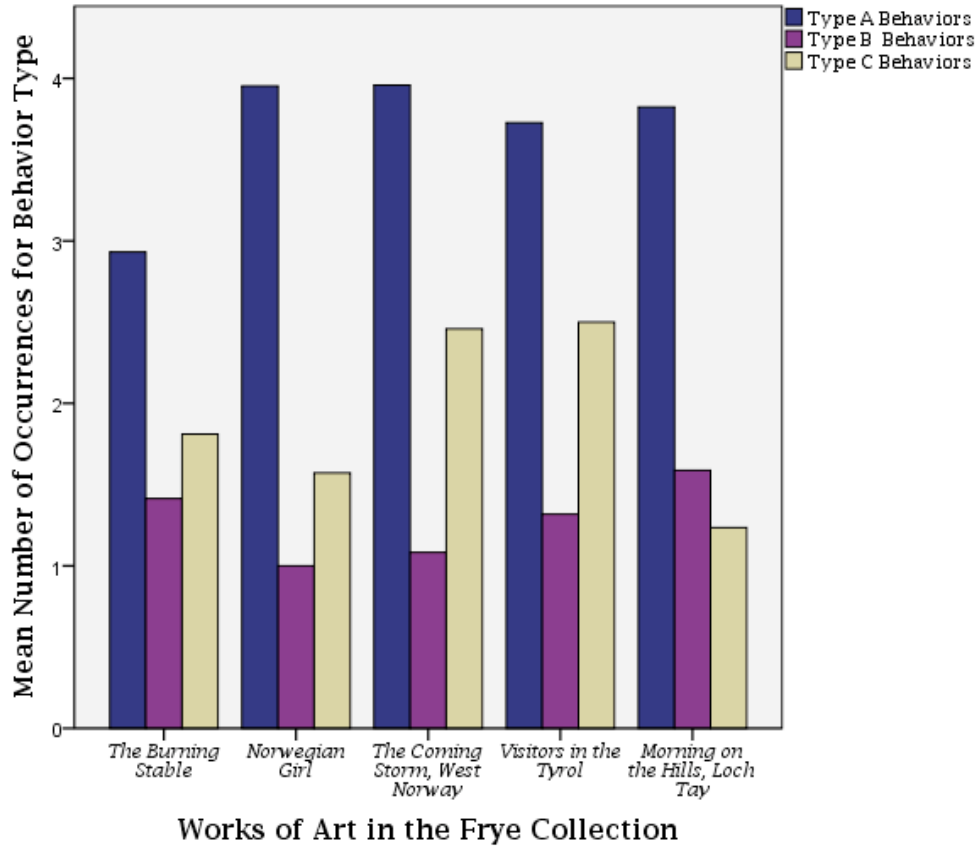
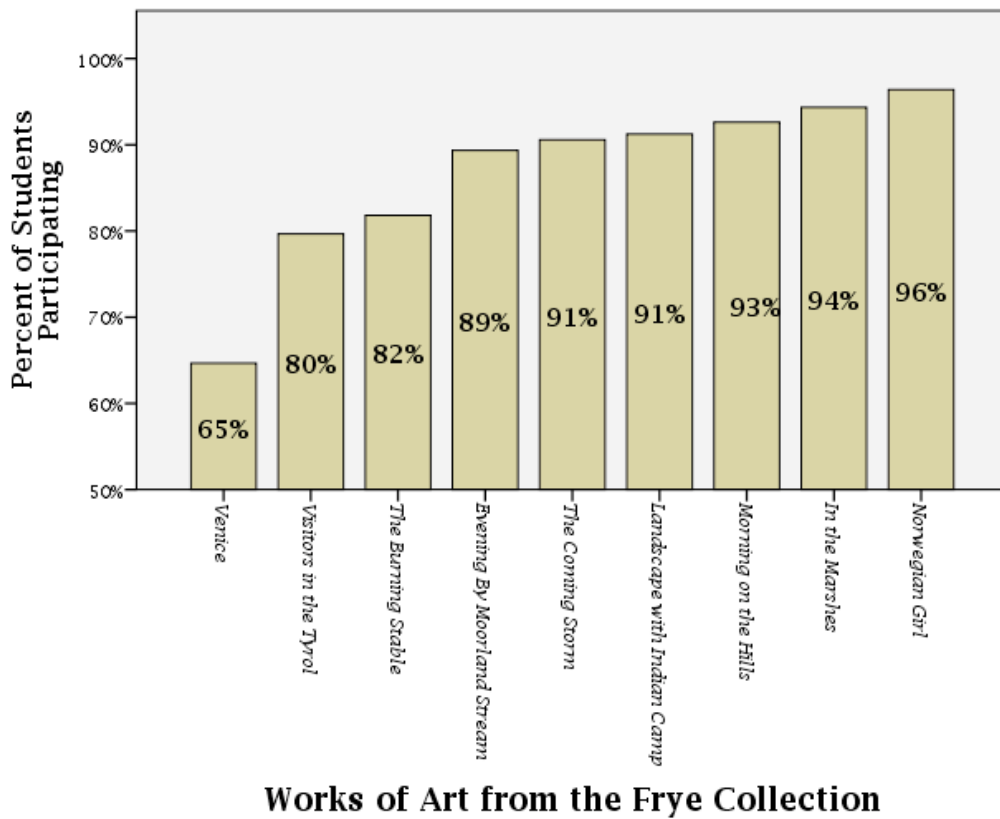


Figure 7



Gallery guides commented that with video installation, the students would sometimes focus entirely on the video, making it difficult to generate discussion. Gallery guides also mentioned that having multiple soundscapes in the same room sometimes proved to be distracting for the students.

Discussion

This study found that certain conditions are related to levels of student behavior on the VTS-based tours at the Frye Art Museum. The use VTS and similar questions, group size, the presence of additional activities, and time of the tour all

affected the breadth and depth of participation that took place. Additionally, different works of art generated different types of discussions.

The use of VTS and similar questions (such as “How do you think the horse are feeling?”) positively affected the depth of participation, to a point. On average, the use of more than eight questions resulted in a decline in the depth of participation was observed. In some cases, this may be because the gallery guides asked a higher number of questions if the group was not engaged in order to generate participation. It could also be attributed to the relationship with time spent at one stop and the depletion of attention with increased time.

The average observed group size for the tours was seven students, but some groups were as small as four and as large as twelve students. Gallery guides would sometimes combine their groups both at the start or end of a tour, leading the largest group sizes. Participation was highest in groups of four to six students and decreased as group size increased beyond six students.

The use of additional activities greatly increased the depth and breadth of participation that took place. These activities were designed in order to involve the most students as possible, asking them to take turns participating (such as in building a story) or to participate as a group (like when posing as a horse). By having activities that engaged different skills the students possess, including writing, drawing, storytelling, and athletic skills, students were able to participate in at least one sort activities that they were comfortable with, and possibly even excelled in, allowing for a greater level of participation.

Observed participation levels were higher and lower among different artworks. These differences are likely related to activities that took place more often at specific works of art. For example, at Hans Dahl’s (c. 1905) *Norwegian Girl* the gallery guides would frequently ask the students “What type of animal would you put in this picture? Why?” This painting had very high levels of participation, both in terms of breadth and depth.

The time of the gallery tour affected the levels of participation. Although it is unknown why the second group in the gallery has in general lower levels of participation, it is hypothesized that this is because this tour, which ends at noon, is

closer to lunchtime and occurs after the students have already been involved in activities at the museum for one hour. Additionally, the content and media of the works of art generated different types of student responses. Students would often discuss what sort of animal is depicted in William Watson's (1910) *Morning on the Hills, Loch Tay*, debating if they are sheep or mountain goats.

Conclusion

It is hoped that the findings of this study can be used to inform and strengthen gallery guide training at the Frye for the school tour program. The results provide support for the use of these particular questions if the intended outcome is active participation. To this end, they can be used to help encourage gallery guides to integrate VTS methods into their tours. They also support guide use of activities not encompassed in VTS, and can hopefully encourage the continued presence of activities in the tours.

The results are also intended to contribute to a platform for researching and developing other programs involving school tours and/or the use of VTS in art museum settings. Like other evaluations before this, our findings include just as many, if not more, questions than answers. We suggest that future research be done to delve further into the potential for different media and content within artworks to create varying environments for and characteristics of dialogue in a group. The findings of this project also suggest that more investigation of the integrations of VTS methods with other, site and/or program-specific methods at other art museums would be beneficial. We also propose that further research be done on the use of VTZ group tours through videotaping to capture a richer picture of the dynamics of these group discussions.

Acknowledgements

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Appendix A: Observation Instrument

Date	Initials	Group Size	tour	1st	2nd	Stop # / name of artwork	Gallery Guide Name	time start : : time stop : :
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

<p style="text-align: center;">Gallery Guide</p> <p>"What's going on here?" Tally <input type="text"/> <small>What do you see? What animals / shapes / colors do you see?</small></p> <p>"What do you see that makes you say that?" Tally <input type="text"/> _____ _____</p> <p>"What more can we find?" Tally <input type="text"/> _____ _____</p> <p>Conditional language Tally <input type="text"/> _____ _____</p> <p>additional questions / information / activities _____ _____</p>	<p style="text-align: right;">Student gender: f / m</p> <p>Raised hand Tally <input type="text"/> _____</p> <p>Listed Tally <input type="text"/> _____</p> <p>Speculative Listing Tally <input type="text"/> _____</p> <p>Agreed Tally <input type="text"/> _____</p> <p>Disagreed Tally <input type="text"/> _____</p> <p>Built on dialogue Tally <input type="text"/> _____</p> <p>Eyes-on-canvas <input type="text"/> <small>never occasionally often almost always</small></p> <p>Evidence Tally <input type="text"/> _____</p> <p>Conditional language "maybe" / "might" Tally <input type="text"/> _____</p> <p>Revised own opinion Tally <input type="text"/> _____</p> <p style="text-align: center;">Group</p> <p style="text-align: center;"> </p>
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additional notes

Appendix B: Gallery Guide Interview Questions

- To what extent did students appear to have their attention focused on the artwork?
- To what extent did the students' comments build upon a group dialogue?
- How balanced was participation between students in the group?
- Please provide any additional comments and observations here (open ended)