Chapter One

EXPERIENCE TO ENCOUNTER: THE MUSEUM AS PERFORMATIVE SPACE

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FEW VISITORS TO art museums walk in expecting to find thirty-plus middle school students acting as their own docents, leading their peers through discussions of what they see and wonder about in works of art from abstract expressionism to wood turnings, to sculptures by Rodin. But for close to ten years, we led seventh and eighth grade students through patterned close-viewing and dialogical sharing exercises culminating in small-group, kinesthetic responses that have moved parents and college professors alike. This essay will recount the process and products stemming from these patterned, experiential learning activities. Grounded in research on embodied cognition, the phenomenology of looking, on teaching with objects, and on multi-modal learning, the essay will also detail the manner in which the teachers involved in this project—at both middle-school and college level—prepared students for these visits and how this preparation led to some of the most memorable and meaningful moments in these educators' and students' lives.

For most visitors, walking into an art museum is an exercise in self-control. We enter a headspace of quiet observation as the works around us "speak," and we, in turn, listen or walk on. The space of the art museum is designed for just such encounters, from the sacred groupings of The Barnes Foundation in Philadelphia to the eclectic collections of Baltimore's American Visionary Art Museum, the art museum has primarily been a space devoted to the primacy of the gaze and its silent, contemplative learning, often with the didacticism of a docent or audio-led tour. While many museums are engaging in activities that shift this perception, introducing more participatory interactions with the artwork to promote understanding and meaning-making, many visitors still perceive the experience of an art museum through the traditional, more passive, receptive lens.

In contrast, we herein reveal an almost decade-long practice of participatory, kinesthetic experiences with art exhibitions that offered an alternative to the traditional quiet, contemplative, ruminative pattern. Our process was grounded in the model of looking put forth by David Perkins in *The Intelligent Eye: Learning to Think by Looking at*

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Art, as well as research in dialogic learning, and the cognitive sciences, most notably the concept of embodied cognition.[1] Influenced by the progressive pedagogies of Dewey and other, more contemporary theorists, we designed opportunities for students to engage with artwork in ways that honoured their own agency as inquisitive, intelligent actors. These opportunities allowed them to see artwork in ways that altered not only their perception of the museum, but also their own understandings of themselves. In essence, we had our learners doing things, not just observing them, and we had them reflecting on their "doings" in various ways.

While this chapter is not a primer on embodied cognition, it does rely heavily on embodied cognition's basic premise that "the brain, while important, is not the only resource we have available to us to generate behavior. Instead, the form of our behavior emerges from the real-time interaction between a nervous system in a body with particular capabilities and an environment that offers opportunities for behavior and information about those."[2] In other words, the behaviour of human beings, most specifically cognition—the act or process of knowing—is not, as Descartes's "*Cogito*" implied ("I *think*, therefore I am"), housed solely in the mind. Instead, cognition is a whole-body construct. Pfeifer and Bongard point to this when they define "embodiment" as "the idea that the body is required for intelligence" while more aphoristically Maturana and Varela note something similar when they write "all doing is knowing, and all knowing is doing."[3]

Thus, the work described within this chapter is not only grounded in theories of looking and knowing, but is motivated by a pedagogy that insists students must act and *do* things in the museum beyond ruminating if they are to construct understandings of the works they encounter. What follows is the story of how and why we engaged hundreds of students in diverse activities that challenged their own understandings of the museum as a place, and also challenged administrators, teachers, and professors to reassess their traditional notions of the museum as a learning space.

Background

In 1994, my school district sought to prepare itself for the twenty-first century in a proactive way. With the leadership of our Assistant Superintendent for Curriculum and Professional Development as well as two facilitators from The Future Search Network

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1 David Perkins, *The Intelligent Eye: Learning to Think by Looking at Art* (Los Angeles: Getty Museum, 1994).

2 Rolf Pfeifer and Josh Bongard, *How the Body Shapes the Way We Think: A New View of Intelligence* (Cambridge, MA: Massachusetts Institute of Technology Press, 2007), xvii, https://pdfs.semanticscholar.org/2910/099b7a7c555af9f14bfb2bc20e9475d0588f.pdf.

3 Pfeifer and Bongard, *How the Body Shapes the Way We Think*, xvii; Humberto Maturana and Francisco Varela, *Autopoesis and Cognition: The Realization of the Living* (Dordrecht: Riedel, 1980), cited in Lawrence Shapiro and Steven Stolz, "Embodied Cognition and Its Significance for Education," *Theory and Research in Education* 17 (2018): 19–39, https://doi.org/10.1177%2F1477878518822149.

(futuresearch.net), our district reshaped itself around a communal vision of the graduate of 2010. Recognizing that the world required—and our parents wanted—more creative, inventive thinkers, the district's response was to develop a class focused on exploring the connections among the arts in the middle grades. Over several years we developed a course called "Creative Expressions through Performance," or CE for short, in which student learning was centred on outcomes related to the cultural connections among the literary, performing, and visual arts.

As it evolved through several years of implementation, CE became a class that engaged students in reading the world, its texts ranging far beyond literary work. Students explored ways to observe, understand, and create music, art, and works of literature by discovering the connections bridging the disciplinary gaps among the language arts, visual arts, and musical/performing arts. Crucial in this work was the understanding that students were not mere consumers of culture, but that they were active producers of culture, hence the word "performance" in the class title.

Early in the 2000s, I accepted an invitation to work with the Associate Director for Education at the Philip and Muriel Berman Museum of Art on the campus of Ursinus College, an educational landmark in our school district.[4] A primary goal of the collaboration was to explore how the museum could help expand student learning within the arts through deeper, learner-centred methods than were usual for the traditional art museum. Additionally, we sought to empower middle school students to become peer docents, engaging their fellow students to connect with works of art that might otherwise have seemed unapproachable to them. This method also required students to be more mindful of what and how they see, and it helped them develop the self-awareness and empathy necessary to listen fully, deeply, to others.

Within the first two years of our collaboration, we had settled upon a pattern for the student museum experience that incorporated learning targets and standards, which was flexible enough to accommodate any exhibition, and took a learner-centred approach to understanding through critical observation, inquiry, performance, and reflection. Over the next eight years, hundreds of students would visit the museum and engage in an experience that was unlike anything they'd done before, and unlike anything most people associated with the experience of visiting a museum.

Methods

The most common experience middle school children have of a trip to an art museum is one of quiet, often "boring" attention to static objects that are either mere representations of things (for example, "Oh, that's a bowl of peaches. Thanks, Cezanne.") or are so abstract as to elicit the clichéd "I don't get it" or "I could do that" responses. Thus, their perception of a trip to the art museum, if they have one at all, is one that speaks to things generally inimical to their own existence: silence, isolation, sustained observation,

4 In the interest of full disclosure, the editor of this volume served as Associate Director for Education at the Berman Museum during this time; my professional work with Susan Shifrin spans the better part of two decades.

immobility, all with a lack of ostensible purpose. Rather than reinforce this perception in students, we created an experience that broke down the act of viewing artwork into timed sections, creating learning space for individual observation, small group sharing, and large group/full-class performances. Throughout a common two-hour session, students would never be held in a directed activity for longer than fifteen minutes. This constant switching of activity not only kept students accountable to work within constraints (a proven accelerator of creative thinking) it also kept them fresh and attentive by constantly moving their focus and shifting their responsibilities at developmentally appropriate times.[5] A basic time flow for a trip to the museum is included in Fig. 1.1. All of the students' visits to the museum were prefaced by an overview of the exhibition they would explore. Months before the classes arrived at the museum, my partner teacher and I would meet with the museum's educator to understand the scope and intent of the upcoming exhibition. Once it had been installed, we would meet at the museum to walk through the exhibition and begin developing the students' visit.

Several weeks prior to the visit, students would begin classwork intended to familiarize them with the pattern of activities in which they would engage at the museum. These lessons tied into the class's living curriculum and were designed to build a working vocabulary specific to the type of artwork students would be viewing. For example, when students viewed an exhibition of photographs, they learned about and practised their own skills in framing, the rule-of-thirds, the grounds of an image, lighting, and focus. For exhibitions of sculpture, students developed a vocabulary of form, space, shape, rhythm, movement. Many of these terms would be familiar to them from their art classes, and their use in these museum trips was an opportunity to engage with these terms in an authentic experience beyond the walls of school.

A second piece of preparation for these visits was practice in a method of self-driven, deeper learning through close viewing—a modified and patterned version of the model laid out by Perkins. (Figs. 1.2 and 1.3 clarify how we adapted Perkins's work for our students.[6]) The week prior to the trip, students experienced numerous and escalating practice sessions to develop a rhythm and timing for the museum visit as well as an understanding of how the separate viewing activities flowed together and built upon each other.

A single visit to the museum would engage any student in viewing all the works in the exhibition, settling upon one piece of work with which to engage more deeply, making observations about what they saw, what they thought about what they saw, developing questions and wonderings about the artwork, and finally discovering (through conversation) what more others saw that each individual student did not see. This pat-

5 Thomas Oppong, "For a More Creative Brain, Embrace Constraints," Inc.com. https://www.inc.com/thomas-oppong/for-a-more-creative-brain-embrace-constraints.html.

6 While we used this with our students, the model works for anyone, regardless of their background. Indeed, Perkins' later work in Visible Thinking (http://www.pz.harvard.edu/thinking-routines) and with Harvard's Project Zero in general (http://www.pz.harvard.edu/who-we-are) clearly breaks *The Intelligent Eye's* model into more discrete tools for the classroom, most notably the "See, Think, Wonder" routine (http://www.pz.harvard.edu/thinking-routines).

Directions for the Berman Museum Trip:
Example for a Photography Exhibition

1. As you enter the museum, please put your coats and any bags into the coat room, immediately to the right as you come into the museum.
2. Proceed into the main gallery and sit in a circle in the middle of the museum.
3. Mr. Heidt will give you some general instructions reminding you of your practice sessions in close viewing.
4. Spend the next 15 minutes exploring the exhibition. Please do this individually. It's important that you try to see as much of the exhibition as possible.
5. Take your time to read all the panels and to take in what they add to the works on display.
6. Look for three photos/works that speak to you most, for whatever reason. Jot down the names of these photos/works in your journal. Take in the facial expressions, posture, body language, surroundings and setting of the story they create.
7. When the chimes sound, return to the first of your photos/works. If someone else is there, then go to your second choice. You want to get to a work that will be yours, more or less, individually.
8. When the chimes sound again, begin completing column one, "What do you See?" Continue this column until the chimes sound again.
9. On the second chime, shift and work on the second column.
10. Third chimes=third column.
11. After the third chimes, return to the main gallery.
12. Groupings to share what you see. (Groups of 5). Each individual will share their observations in the first 3 columns, and will request insights for the fourth column (What more do others see?) to help them build perspective.
13. If your person could speak a single line to summarize her life as you see it in her face. What would it be?
14. Writing assignment.

Figure 1.1. Basic Time Flow and Directions for Berman Museum Trip: Example for a Photography Exhibition. Created by author.

Perkins' Model	**Our Implementation** (See Fig. 1.3)
"Giving Looking Time" (p. 36) – Slow Looking Down (building persistence, patience, and commitment to looking.)	Students browse a limited exhibition, choose one work of art, and spend no less than 15 minutes with that work.
Initial viewing of a single work—focusing, naming, experiencing – Slow Looking Down (building persistence, patience, and commitment to looking.)	Column one on our chart: – What do you see?
"Making Looking Broad and Adventurous" (p. 47): – Deepen the experience—"Expanding Perceptions" and "Looking for..." (p. 52)	Columns two and three on our chart: – What do you think? – What do you wonder? What questions do you have?
"Making Looking Clear and Deep" (p. 59) – "The Analytical Eye (p. 64)	Columns three and four: – What questions do you have? – What more do others see?

Figure 1.2. Comparison of Close Viewing Models. Created by author.

terned activity in viewing moved students from observation to inference making, to inquiry/question formation, to teaching and engaging in dialogue with others. (Refer to the comparison in Fig. 1.2 and the activities in Fig. 1.3.)

While our modified version of Perkins's exercises was instrumental in helping students engage with artwork to build understanding in themselves and others, two additions to the process helped drive the experience into deeper and more diverse cognitive realms. First, with the help of the Philadelphia Chapter of The National Writing Project, we developed a kinesthetic response to the artwork in which students, working in groups, created moving tableaux of repeated gestures and sounds which, when performed, resulted in a sort of constrained, repetitive dance, with each member of a group adding a gesture and sound in succession.[7] The design of these moving tableaux required students to collaboratively create a synthesis of the ideas and observations they'd made on their close viewing charts; an act that engaged students in most of the

7 Shirley Brown, a former teacher and assistant principal in the Philadelphia School District, teacher-educator and member of the National Writing Project, served as a temporary educator at the Berman Museum during this time.

Title of Piece _____

Name _____

Artist _____

Period/Date _____

What do I see? (8 mins) — List only those things you can truly see. Forms, lines, shapes, positive/negative space, shades, tones, colors.

What do I think, feel about this piece? (7 mins) — List how the object effects you, your emotional reactions. What in nature does it seem to remind you of? List as many things as you can.

Try to write a sentence or so about the posture (body position) you would make if you were going to respond to or some form or part of a form in the art.

What questions do I have? What do I wonder? (7 mins) — Please go beyond just, "What the heck is it?" Come up with questions about the use of elements of art and design? Ask questions of yourself and why you view it as you do.

What more do others see? (5 mins) — Teach others about what you see. Ask them for one thing new they have seen. Write down your partners' responses.

Figure 1.3. Close Viewing Recording Sheet. Created by author.

"4 C's of 21st Century Learning": Creativity, Critical Thinking, Collaborations, Communication.[8]

Additionally, we added time at the end of each museum visit for written reflection in order to cement the learning and experience in the learners' minds. The Intelligent Eye makes a clear case that looking at art, if it is to be more than the fuzzy, open, often transitory thinking most people are used to and instead help promote connection and add depth to experience, must include time for reflective thinking. Perkins is not subtle about this, indicating that "reflective intelligence is a control system for experiential intelligence. By cultivating awareness of our own thinking [metacognition], asking ourselves good questions, guiding ourselves with strategies, we steer our experiential intelligence in fruitful directions."[9] Students had options to reflect through poetry, dialogue, or through a traditional "reflection compass" format of responding to prompts like: Something happened. What happened? So what? Now what? (For a selection of writing prompts, see Fig. 1.4. a–c)

Research and Philosophical Foundations

The partnership between the Philip and Muriel Berman Museum of Art and Perkiomen Valley Middle School East lasted for nearly a decade (2004–2013) and was premised upon emerging and developing research on human cognition and learning. David Perkins's belief that artwork offered a particularly fertile context for developing thinking dispositions was a north star for this project. The characteristics of these dispositions, which Perkins defines as "a felt tendency, commitment, and enthusiasm," gave us direction in terms of developing each museum visit.[10] They offered us, as well, a way to assess the success of our students' experience in an informal, formative manner.

The act of learning through critical observation is not new. Such close viewing constitutes a crucial part of science and art classes. It is, however, something with which many teachers are not familiar, especially when applied to the humanities, even though the impact of such careful attention to what we see is undeniable. For example, Professor Shari Tishman declares that "examining objects closely is an excellent way to motivate and sharpen student thinking."[11] Museum educator John Hennigar Shuh's description of the importance of critical observation is similarly hard to ignore: "being able to see the world clearly and to ask good probing questions of it is as important in a whole variety of non-academic life situations as well."[12] Both Tishman's and Shuh's articles

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8 "Introduction to the 4 Cs," Common Sense Education. Partnership for 21st Century Skills, April 1, 2020, https://www.commonsense.org/education/videos/introduction-to-the-4-cs.

9 Perkins, *The Intelligent Eye,* 15.

10 Perkins, *The Intelligent Eye,* x.

11 Shari Tishman, "The Object of Their Attention," *Educational Leadership* 65, no. 5 (2008): 44. http://www.ascd.org/publications/educational-leadership/feb08/vol65/num05/The-Object-of-Their-Attention.aspx.

12 John Hennigar Shuh, "Teaching Yourself to Teach with Objects," *Journal of Education* 7, no. 4 (1982): 12.

POTENTIAL WRITING PROMPTS

A) Sketching and writing

First: Using your pencil and the paper provided in your folder, take about 5 minutes and sketch a view of the object you have studied.

Second: write a list of 10 words that are purely descriptive of what you see in the object. Underneath the sketch, follow the format below and write a poem about it.

Title: Use the actual title of the object

Stanza 1: Lines 1–3: One word/line, write a descriptive word about the object.

Stanza 2: Lines 4–6: Ask this object three short questions
(Look at your Close Viewing—column 2.)

Stanza 3: Line 7–9: Have the object reply to your questions in short, descriptive phrases. You need not use the word "I" when speaking as the object.

Stanza 4: Line 8–?: End by completing this sentence:
"I know now... " Or "I knew from this…"

Example from an exhibition of quilts

Worn
Faded
Threadbare

Where have you been?
Whose child's warmth did you keep?
What have you heard?

In houses and hearts
of children with sweet breath
who murmur lullabies in their sleep
I know now that a baby's warmth is
born of many hands working
Together.

Example from an exhibit of Rodin's sculpture

The Three Shades

Reaching
Bending
Aching

What have you done?
Are you tired?
Is this your end?

Nothing but lying;
The weariness of life;
An agony of longing.
I knew from this that our bodies
Are full of words
We cannot speak.

Figure 1.4. (a) Sample Writing Prompts for Responding to Art. Created by author.

B) Short Poetry

Return to the piece you studied with your Close Viewing sheet. Reread the first and fourth column. *Look again at the questions you asked and the simile you created* at the bottom of column two. Keeping those observations fresh in your mind, write a poem in the format presented below.

(The format below is from the book *Image to Word: Art and Creative Writing)*

A. Give the piece a new title, make it metaphorical (Something that suggests what the piece is like) or descriptive

B. Describe what the piece is doing (Action phrase—use an "ing" word)

C. Write a simile (…like _____")

D. Finish by giving the piece another short title

Example: (This is an example from an exhibition of colorful, abstract brush strokes)

A—Seascape

B—Green seaweed swaying in the currents

C—like people doing a slow, sad dance

D—A Wave Goodbye.

Figure 1.4. (b) Sample Writing Prompts for Responding to Art. Created by author.

C) Interview with an Object

You are the top arts reporter for the *New York Times.* Write an interview with the object you have studied. You are to ask it questions about its creation and how it got to be what and where it is. The trick here is that you are also the object. You must answer the questions as the object.

The interview should last for 8 minutes of writing. It should look like an interview. Please keep it focused on what you can see and on the examination of how the object "shows" that.

As the interviewer you should:

- Ask questions that are designed to uncover how the object came to be.
- Ask about what it's made of.
- Ask about why it is where it is.
- Ask about facial expressions, postures, (if it is of a person)
- Ask about shapes, cracks, internal objects (if it is abstract)
- Ask about why it is situated where it is.

As the object, you should always reply by trying to draw on what you learned in your close viewing exercises and sharing with your peers. So you'll want to use your Close Viewing Sheet.

Format:

- Use your initials as the interviewer
- Use an abbreviation of the object's title, or some other name you have given it to refer to it.

Example (2 minutes of freewriting):

GH (my initials): So, *Hands*…I notice that you represent two right hands, not a right and a left hand. Why is that and how is it possible?

Hands: Well, I guess you can say we're not from the same person.

GH: Ah! Interesting. I did note that one hand is smaller, almost more frail than the other. Can you give us some insight on that?

Hands: Sure, think about it. All hands tell stories. Stories about work done, about strength, about care and hard work. So many things could be made through hands, too, or could be prayed for with hands. Without hands we've really no way to build things. So…What story do you think my hands are telling?

Figure 1.4. (c) Sample Writing Prompts for Responding to Art. Created by author.

promote the use of objects within a constructivist pedagogy and provide ample, practical evidence to further Perkins' argument that critical observation should be part of our students' educational experience, whether in or out of a museum.

But further, the evolution of the student experience into one that culminated in student performance and reflection was supported by theories of experiential and participatory learning as well as the cognitive science supporting embodied cognition.

From a pedagogical standpoint, aside from the background vocabulary students engaged with prior to visiting the museum, this was a project that relied on a patterned, authentic, learning experience. Perkins's work provided the essential pattern for the museum visits, helping us shape and guide the learning from initial browsing, to close viewing of one work, to deepening the experience, to engaging in an inquiry-driven discourse with the artwork, to finally sharing it verbally and kinesthetically with others. Over the course of almost a decade it was clear that Perkins was correct, as students' "felt tendencies, commitment, and enthusiasm" revealed an engagement with art that was, for many, a transformative experience.

Experience Becomes Encounter

While Perkins's model works well as a structural and pedagogical descriptor for the museum experience we created, the depth of the students' viewing and the inclusion of the collaborative, kinesthetic response as the culmination of the experience added a philosophical depth to their work that pushed it past mere experience, transforming it into something more like an "encounter." The distinction is not merely semantic. Instead, its nuance is founded in the work of Austrian Jewish philosopher Martin Buber in his book Ich und du (I and Thou).[13] The difference between experience and encounter is central to the impact of all my pedagogical decisions.

> At its heart are two distinct modes of engaging with the world. The first, the *I-it* mode, is the mere experience of an object of observation or utility (the "it") by a subject (the "I"). This mode is clinical and scientific, detached and observant—think of a virologist watching a petri dish. But in the second, the *I-you* (*thou*) mode, both objects enter into a transformative relationship. The "I" engages the "you" as an entirety, the universe in and of itself … Buber classifies such a relationship through three elements, the third of which is the fact that this one person (the *I*), without forfeiting anything of the felt reality of his activity, at the same time lives through the common event from the standpoint of the other.[14]

In essence, the students' work within the exhibitions amounted to a dialogue between themselves and their chosen artworks. The pattern of looking based upon Perkins' work, the kinesthetic responses as developed collaboratively, their personal reflections … all these depended upon an ability to imagine the artwork as a wholly present "*thou*." Danielle Carter implies as much in her article "Participatory Practices in the Museum

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13 Martin Buber, *Ich und du*, 1st ed. (Leipzig: Insel, 1923).

14 Garreth J. Heidt, "Touching the Sturgeon," in *Writing from the Inside Out* (Annandale-on-Hudson: Bard College Institute for Writing and Thinking, 2011), 5.

Space: A Dissection" when she recounts a presentation made by student docent Lena Porsmo Stoveland. Stoveland "argued … that the life of the object was a participatory one," implying that it had a history beyond its creation, a life of interaction and meaning created *with* and not merely *by,* the people who used, preserved, and revered it.[15]

Just so, through our process of critical observation and interaction, what was merely an act of observation and cultural consumption became an experience at the pedagogical level. Further, through the cognitive leaps necessary for engaging in the kinesthetic responses and written, imaginative reflections, we elevated the experience to an encounter, allowing the students—as Buber notes—to live through the common event from the standpoint of the other.

Perhaps Buber's language points to the existence of yet a third level of understanding that our museum experience captured—that of the embodiment of cognition. For beyond the experience, beyond the philosophy there is a deep, biophysical reason to elevate the experience to an encounter. The *Stanford Encyclopedia of Philosophy*'s entry on Embodied Cognition delineates four "examples of phenomena that have motivated embodied cognitive science."[16]

1. We typically gesture when we speak to one another, and gesturing facilitates not just communication, but language processing itself (McNeill 1992).
2. Vision is often action-guiding, and bodily movement and the feedback it generates are more tightly integrated into at least some visual processing than has been anticipated by traditional models of vision (O'Regan and Noë 2001).
3. There are neurons, mirror neurons, that fire not only when we undertake an action, but do so when we observe others undertaking the same actions (Rizzolatti and Craighero 2004).
4. We are often able to perform cognitive tasks, such as remembering, more effectively by using our bodies and even parts of our surrounding environments to offload storage and simplify the nature of the cognitive processing (Donald 1991).[17]

Incidentally, our students' participatory interactions with artwork checked all these boxes. In developing their kinesthetic responses, students had to create gestures (no. 1 above) inspired by the artwork, an act that was largely initiated by the "action-guiding" nature of vision (no. 2 above). In addition, the other cognitive tasks associated with the students' visits—the reflections and written responses—were augmented by the embodiment of their understanding. Most striking is the realization that extends out of no. 3 in the list above—that through observation of the artwork itself, whether rep-

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15 Danielle Carter, "Participatory Practices in the Museum Space: A Dissection," *Art Museum Teaching* (May 12, 2017), https://artmuseumteaching.com/2017/05/11/participatory-practices/.

16 Robert A. Wilson and Lucia Foglia, "Embodied Cognition," *Stanford Encyclopedia of Philosophy* (Stanford University, 1997–), published December 8, 2015, https://plato.stanford.edu/archives/spr2017/entries/embodied-cognition/.

17 Wilson and Foglia, "Embodied Cognition," section devoted to "Embodied vs. Traditional Cognitive Science."

resentational or abstract in nature, mirror neurons were firing as students observed or imagined their relationships with the artwork. This is clearly revealed in the last two sections of the video "The Expressionist Gesture," which I created after one of the school's early visits to the Berman Museum.[18] While this video captures the entirety of the close viewing process, the later parts reveal students practicing and performing their collaborative kinesthetic responses as well as their individual gestures and sounds in ways that exemplify an embodied understanding.

Outcomes and Conclusions

Through their critical observations and their recording of those observations; through the dialogues with their peers to learn what more others saw; and through their gestures, words/sounds, and performances, the students encountered artwork in ways most never had before. While novel experiences such as this embed learning in our memory more deeply than routines do, that, in and of itself, is not reason enough to espouse such a method. Indeed, the greatest learning here, as it often is in life, is not the products produced. It is the process and experience themselves.

The critical observations promoted student agency. It is too often the case that in schools, students' observations are silenced, buried under the "correct" perspectives of the teacher or instructor. Here students were not only prompted to talk about what they saw—not an uncommon occurrence in the methods of any museum educator—but then to adopt a stance of educator themselves when they introduced the piece of art they observed to the other members of their group (each of whom had viewed a different piece of art). We learn most when we strive to make our own understanding clear to others. Through our close-viewing process and the creation and performance of their kinesthetic responses to artwork, students were given the opportunity to share their understandings with their peers and the world.

Furthermore, those creations also required students to engage in collaborative, creative, critical, work that needed a good deal of open dialogue and communication. To watch the negotiations, arguments, concessions, and consensus-building that would go into one twenty-second-long response of this sort was to watch students engage in authentic learning, and the kind of difficult creative problem-solving that is ever more important in our ever more complex world.

The museum's role in opening students' minds and providing the space in which we might challenge students' own ideas of how learning could happen was formative in the rest of their experience in this class. Recognizing the role their body played in both understanding a novel situation as well as working towards a collaborative solution shifted the way they came to approach much of their subsequent learning. Their teachers came to see their students not merely as consumers of cultural knowledge,

18 Garreth Heidt, "Expressionist Gesture 2005," YouTube video, 8:19, September 30, 2019, https://youtu.be/8mrobQ2EWdQ .

but also as producers of it: as what Alvin Toeffler had labeled "prosumers."[19] This shift in the teachers' perspective allowed us to take more risks within the classroom and pushed our work ever further towards more embodied, inquiry-driven, learner-centred methods.

Coda

That a single space could provide such a transformative experience is not unique. But that an institution like an art museum was willing to transform itself so that its patrons could do the same? That mattered. It meant that the cultural institution of the museum saw itself as more than a repository for valuable artifacts where the learning was unidirectional, from object to person: more than merely a place where one goes to have a cultural experience. Instead, it saw itself as part of a dialogue, a space where "knowing was doing," where learning was relational, embodied, and alive … a space for participatory experiences where students encountered artwork, and in doing so, encountered themselves.

Select Bibliography

Buber, Martin. *I and Thou*. Translated by Walter Kaufmann. 100th anniversary reissue. Chicago: Touchstone, 1971.

Carter, Danielle. "Participatory Practices in the Museum Space: A Dissection." *Art Museum Teaching* (May 12, 2017). https://artmuseumteaching.com/2017/05/11/participatory-practices/.

Oppong, Thomas "For a More Creative Brain, Embrace Constraints," Inc.com.

Perkins, David. *The Intelligent Eye: Learning to Think by Looking at Art*. Los Angeles: Getty Museum, 1994.

Pfeifer, Rolf and Josh Bongard. *How the Body Shapes the Way We Think: A New View of Intelligence.* Cambridge, MA: Massachusetts Institute of Technology Press, 2007. https://pdfs.semanticscholar.org/2910/099b7a7c555af9f14bfb2bc20e9475d0588f.pdf.

Shuh, John Hennigar. "Teaching Yourself to Teach with Objects." *Journal of Education* 7, no. 4 (1982): 8–15.

Tishman, Shari. "The Object of Their Attention." *Educational Leadership* 65, no. 5 (2008): 44–46.

Wilson, Robert A. and Lucia Foglia, "Embodied Cognition." In *Stanford Encyclopedia of Philosophy*. Stanford University, 1997–. Article published December 8, 2015. https://plato.stanford.edu/archives/spr2017/entries/embodied-cognition/

19 Alvin Toffler, *The Third Wave* (New York: Bantam, 1981).