

AN ARTIST-IN-RESIDENCE CASE STUDY:  
A WORTHWHILE OR WORTHLESS PROGRAM?

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## Chapter 4 Findings

This chapter will begin with a brief overview of the site and participants described in detail elsewhere, and a short section entitled pre-residency background, meant to inform the reader about pertinent events and materials that led up to the artist residency of Kevin Reese. The Findings chapter proceeds to review the findings of six separate forms of data collection: a pre-residence survey, a post-residence survey, photographs of the mobile-making process with captions and field note descriptions, transcribed excerpts of Mr. Reese's lessons, and, finally, transcribed recorded group interviews with 56 third graders after the residency. The six methods of data collection were chosen in order to ensure triangulation and to address the following research questions: what specific knowledge, concepts or skills do students learn during an artist's mobile-making residency program, and what are some pedagogical processes and practices that the art teacher gained, if any, to justify the cost of the residency?

The pre-residency and post-residency survey results must of necessity be considered together, as one has little meaning without comparison to the other. All the survey results can be found in pie chart form in Appendix H. Some of these survey results will be presented in numeric percentage format in this chapter, instead of visual charts. The survey results will appear throughout this case study's descriptive Findings chapter, as appropriate.

The photographs, field notes and transcribed lesson excerpts will be interwoven, and will be presented first to establish the experiential part of the residency, lesson highlights, and to give the reader a sense of what the students and art teacher experienced. This will also help place the two surveys and the post-residency interviews

in context.

### Description of the Site and Participants

The case study looked at a week-long artist-in-residence at a gifted and talented public elementary school in Brooklyn, NY which took place November 28-December 1, 2011. Fifty-six third graders were involved with the residency. The students' backgrounds and ethnicities were varied, while gender was split evenly in the grade as a whole. All of the mobile lessons with Mr. Reese took place in the art room.

### **Pre-residency Background**

A lesson on Alexander Calder was taught prior to the residency to introduce the definition and concept of mobiles, and to enable the students to produce drawings (for several samples, see Figure 1) from which the artist would create scale models. The themes for the mobiles were two-fold: the first was diversity, and the second was the performing arts. The students had just had a social studies unit on diversity and their own cultural backgrounds. The performing arts were chosen as the students have dance, music, violin, and art classes every week, are involved in some video and video editing lessons, and have been part of school theatrical and musical performances. The students made drawings based upon the two themes and 56 drawings were sent to the artist prior to the residency.

**Figure 1. Third grade student mobile drawings, October 2011**



Based upon the student drawings, the artist, Kevin Reese, created 5 one-eighth scale mobile models (ranging in size from approximately 6 to 10 inches) The students then worked with the artist to create full-size mobiles ranging in size from 4 feet to 8 feet based upon the models. The residency resulted in 9 large mobiles being created and finished, 8 of which were installed around the school: the 9<sup>th</sup> is being kept as a special item for the annual gala auction to help raise funds for next year's enrichment budget.

**Figure 2. Finished student mobiles created at Elementary School B**



### **Pre-residency and Post-residency Survey Results**

Prior to the residency, I created and distributed a 12 question written survey to the third graders who were going to be most immersively involved with the artist. Fifty-two of the fifty-six third graders were present that day, and took the survey in the art room. They were given approximately ten to fifteen minutes to complete it. The questionnaire included six specific questions regarding mobiles, public art and the meaning of

abstraction, and six general questions about the students' concepts of accomplishment, teamwork, cooperation, (Appendix F). A 14 question post-residency survey was also created which asked the same questions as the first, in order to observe if there have been any changes in the students' perceptions. However, two open-ended questions were added about what, if anything, the students enjoyed during the residency (Appendix G).

### **Photographic Timeline, Field Notes and Lesson Excerpts**

The mobile-making residency began on a Monday morning, November 28, 2011. Third grade classes were split in half so students numbered 14 per group. There were four groups, labeled 301A, 301B, 302A and 302B for purposes of photographic record keeping. Each period lasted 45 minutes in the art room. The students had been prepped that this was to be a special week, and that the third grade was the only class that would be creating large mobiles with the artist-in-residence. Reese greeted the children, introduced himself as a sculptor and began his lesson by speaking about Alexander Calder: Calder was a painter first, but was also a sculptor and a toymaker. He created a toy circus and put on performances with it, but most of all, he was an inventor: he invented the mobile. Reese went on to ask the students what a mobile was, and then defined a mobile as a piece of art that moves. He explained that what the class would be making was called public art, and proceeded to give the class a lesson about scale. It should be noted that Mr. Reese is also an actor and speaks in a very animated manner, with lots of energy, facial expressions and hand movements.

### **Excerpt from Digitally Audio Recorded Lesson A, Day 1:**

**Mr. Reese:** Here's the thing, this is a piece of public art. We're creating public art.

What is public art?

**Student:** Well, public art is something that can stay for some time. It's not something that you're going to put up and then will fall over.

**Mr. Reese:** Right, right. Yes, go ahead.

**Student:** It's art that's all over.

**Mr. Reese:** Yes, it's art that is created to be placed in public spaces, accessible to all. These mobiles are going to be here permanently, meaning that these mobiles are going to be here for years to come. So the work we are doing is very, very important because they are going to stay, people are going to see them, you're going to graduate and you're going to be able to come back and see them. You can go and get married and come back and bring your kids back and you can say, "I worked with that artist a long time ago." They're going to be here that long.

**Students:** [Giggle].

**Mr. Reese:** Now, you guys did drawings of what you thought these mobiles were going to look like. I love those drawings. Those drawings were sent to me by Ms. Tanier and they were so cool. I loved them and they inspired me to create a model, or a series of models. What's a model? Who knows what a model is?

**Student:** A smaller version.

**Mr. Reese:** Bingo. It is a smaller version of what we're creating. Now, we're going to talk about a scale model, a one eighth scale model. What do you think that means?

**Student:** I think it means a certain size.

**Mr. Reese:** Exactly. When I say a one eighth scale it means that the model that we're looking at is one-eighth the size of the real thing. So the real thing is eight times bigger. So we're going to be using our math skills today too to figure out how big things are going to be that we're going to make. Now, this is a one-eighth scale me, this is me at one-eighth scale. I'm eight times bigger than this. Why would I do that? Why do they make a one-eighth scale?

**Figure 3. Kevin Reese explaining 1/8 scale model**



**Student:** So you can see how it looks.

**Mr. Reese:** Wow. Yes. So you see how big it's going to feel. So I can put the one-eighth scale model of me beside the one-eighth scale mobile and go "Oh, now I see how big" because we all know how big a person is. Is a person two feet tall?

**Student:** No.

**Mr. Reese:** Is a person twenty feet tall?

**Student:** No.

**Mr. Reese:** We know, our eyes know from birth that the average adult person is between five and six feet. So we can go, O.K., I see now how it looks. Everyone come over here, stand up over here, and I want you to create a line beside the different models that were inspired by your drawings. These are called white models because they are unpainted...They are going

**Figure 4. Mr. Reese with human model and mobile models**



to be all kinds of beautiful colors, like your drawings, and I love the colors, but I created them white because I didn't want to decide on how they are going to be painted yet: you guys are going to do that. Now what I want

you to do is to walk underneath them so you can see how they feel and kind of look at them and you can look at my scale person and you can kind of feel how big these are going to be. If this guy is six feet tall, is this fifty feet long?

**Student:** No.

**Mr. Reese:** No. You see this? This is like half the size of him. So it's about three or four feet wide. When you add this person here, you can get a feel for how big these things are going to be. So in one line, just walk underneath them and just kind of see. What shapes do you see? What forms do you see? Are there any things from your drawings that you see?

### **Field Notes, Day 1**

The students proceeded to walk underneath the five small mobile models that Reese had created and hung from a wire rod that he had suspended from the ceiling tiles. The students exclaimed with awe and excitedly commented that they saw "their" mobile drawing, or a piece from it, such as a star, peace sign, musical note, people or painter's palette. "That's my star!", "There's my peace sign!", or "those are the people I drew!", were common refrains.

**Figure 5. Leading group 302A under mobile models**



**Figure 6. Group 302A students looking at mobile models**



Figure 7. Groups 302B and 301A students observing mobile models



**Excerpt of Digitally Recorded Lesson A Continues:**

**Mr. Reese:** Here's what's going to happen. I want you to practice creating some of the shapes. I want to do two things today. You can either do a person or a star. O.K. That's your choice. You saw those persons that are kind of like butterfly-type persons. They're pretty simple. I'm going to show you. I'll use this guy right here. So a star is five-pointed. It has five points. So a star is just five lines. I've got some rulers. If you would like to do a star, I want you to use the rulers. Have you guys used rulers before?

**Student:** Yeah. Yeah.

**Mr. Reese:** I just want to make sure, because I want you to make nice straight lines. So I want you to practice your star using the rulers. A person, the people that we are creating, they are a little bit abstract, aren't they? What do I mean when I say abstract?

**Student:** Like it's not really anything...

**Mr. Reese:** Like it's not really anything, uh huh. It's a little bit different, right? It's not a person. It's a little bit different from people.

**Student:** It's a little like make-believe.

**Mr. Reese:** Ah! It's like make-believe people so we can use our imagination a little bit more.

**Student:** So it's like sometimes the artist wanted to make something and other people made out something different.

**Mr. Reese:** Exactly! The phrase I use is that it is open to interpretation. In other words, you might see one thing in the painting, and I can see something entirely different, and we're both right. That's the cool thing

about abstract art. So the thing with these people here is that they're simple. So I'm going to draw a curved line like that, two straight lines there and then I want to create a soft one like that. The arms can be a little longer. Then we're going to put a nice simple circle there. There's my person – a curve here, a curve here, a couple of straight lines, and then a small curve down here. So I want you to take a pencil and I want you to practice that on the paper for a few minutes.

**Student:** What about a six-pointed star?

**Mr. Reese:** The thing about the six-pointed star is that is the Star of David which sort of suggests the Jewish religion and I sort of want to stay away from that sort of thing. We could do a six-pointed star if we wanted to suggest something specifically, if we wanted to do something about diversity with other religious symbols. But let's keep the five-pointed stars for now, because they say something a little more abstract.

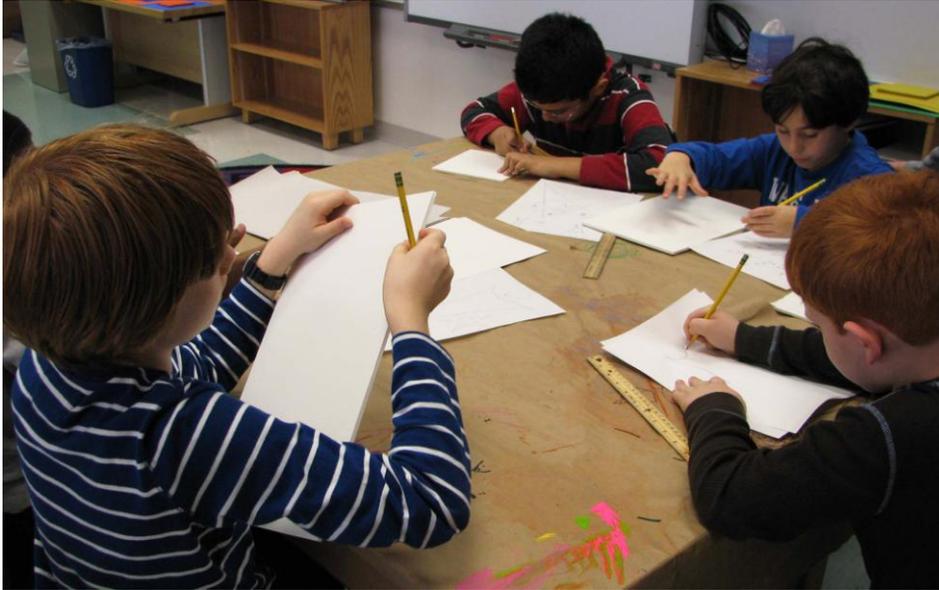
Here's the thing. I made these five models, but we're not necessarily making these same ones. I would say we're using these as a kind of inspiration. We're probably going to create fifteen or twenty mobiles, a whole bunch of mobiles. These are just giving us inspiration and we can do some other things too as part of what we're doing this week.

All eyes up here for a minute. Here's what I'm giving you guys. This stuff is called foam core. This is what the mobiles are going to be made of. It's very light and yet it's relatively strong. It's made of Styrofoam in the middle and then paper on both sides.

So what I want you to do, I want you to draw me out what you've been

practicing on this piece of foam core. If I hand you a piece of foam core this size, I'd like you to make a person that's as big as this. Don't draw me a tiny person on this big piece of foam core.

**Figure 8. Group 301A Drawing on foam core**



So fill the foam core with whatever shape it is, whether it's a star or a person. [Hands out different size foam core based on whether they are doing a star or person.] Who's doing a star? Who's doing a person?

Does everyone have a piece? Now when you draw it out, bring it over here to me and I will cut it out. I'm using what's called a matte knife. It's very, very sharp. [Everyone works. Mr. Reese cuts out shapes].

**Mr. Reese:** O.K. I'm going to give everybody a piece of sand paper. What I want you

to do is, I want to soften these edges. Not the Styrofoam, not the paper, but these edges right here. All it means is I'm taking a little bit of sand paper and I'm just rubbing across that edge and you can see how it goes from being a hard edge, like that, to soft. You see how it softens a little. We

have to do every single edge, all the edges. Always go towards the point. I want to keep the point nice and sharp. This is the most boring, tedious, *important* part, because if this doesn't look good, painting it won't help. All we'd be doing is painting over a hard edge. Once we soften these, people will look at these and wonder, "Is that wood, or is that steel?" Once you get it painted, it's going to look so, so nice but this is the really important part.

**Figure 9. Mr. Reese demonstrating sanding foam core**



[Mr. Reese cut shapes. Students sanded.] End of lesson A. Lesson A was repeated with the other groups of second graders on day one.

**Excerpt from Digitally Audio Recorded Lesson B, Day 1:**

**Mr. Reese:** So, everyone come over here and take a look at this. Gather around. First of all, I use five different kinds of steel on the mobiles. This stuff here, this is called welding rod and it comes in straight lengths. It is copper-coated. It's not copper. Copper is a very mild steel. It bends very

easily. It's not strong. This is copper coated. They melt this steel with a very hot flame and use it to connect to other pieces of steel. Now, it comes in different widths. And we've also got this material here. It's called cold-rolled steel. It's a little bit harder. It's harder to bend. This is not copper coated. The two pieces that I took, I'm going to lay them down and this one I laid down, I want to keep that down because what I'm going to do, I'm going to take this piece of welding rod and I'm going to connect these two guys together. I'm going to bend a little elbow and the end of each one of these. You see this little elbow. It's called a flag. I'm going to lay these two right there and then I'm going to use very special glue called epoxy.

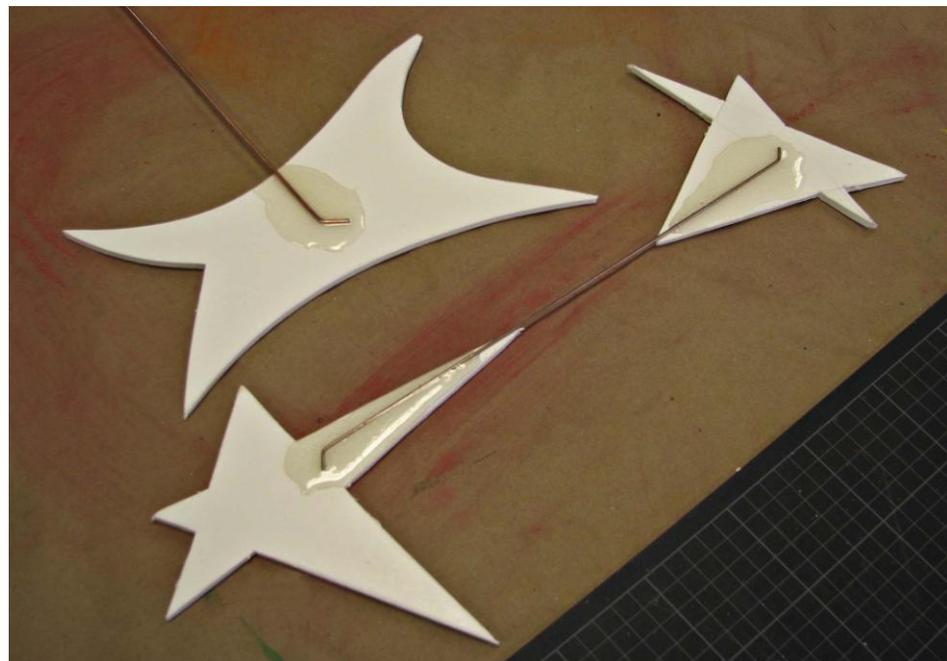
**Figure 10. Bending flags and laying wire**



**Mr. Reese:** Now, you know how regular glue, how it dries it gets hard at the top but still soft in the middle? That's a water-based, air-drying glue. Over time the air, very slowly, pulls the water out of the glue and causes it to dry. That takes sometimes overnight for it to dry really, really hard. This is very different. This is two separate chemicals. The thing about epoxy is

that I can leave those two right there and nothing will happen. They won't dry. They won't do anything for hours and hours and hours. When I mix them together, we have about ten minutes before that is rock hard. It's a chemical reaction between the two chemicals. So I'm going to give this to you to stir that up. Now the clock is ticking. Now we've mixed these together we've got about ten minutes of working time. I'm going to attach this to that guy over there. We're going to put the head on in a minute, or later, because we don't have time right now. You can see how it flows, almost like honey. I'm going to take this and put some of this right there. Right now it looks like blobs and I want it to look a little prettier, like we meant to do this. So I'm going to push this out a little and make a nicer thing there, kind of like we meant to do this. Now I'm going to leave those right there for now and we'll see what happens to this.

**Figure 11. Epoxy drying around wire**



Right now I want everybody to come over to this table and I want to show you one more thing. We're going to use our math skills a little. I'm going to make a circle of this thing here. This is three inches across (measures a piece of model mobile). Now, it's a one-eighth scale model, right? What's three times eight?

**Student:** Twenty-four.

**Mr. Reese:** So I'm going to make the circle twenty-four inches from end to end. Now, from end to end, that's called the diameter. The size of the circle is called the diameter. Half of that is called the radius. Does anyone know, this is a hard question, what is half of twenty-four?

**Student:** Twelve.

**Mr. Reese:** You're so smart! I'm going to make this, [points to wire] this is my radius, twelve inches. Is this twelve inches? Yes, it is. There's the twelve inch mark right there. I'm going to take a pencil, two pencils and I'm going to walk over to this piece right here. This is my big piece. I'm going to have you take this pencil and I want you to hold the pencil right there and don't move it. And now, watch this, guys. I made a perfect circle. Do you know what this is called? This is called the radius. This distance from the center to the edge of the circle is called the radius. You're going to learn that in fifth grade. And then the diameter is the full size of the circle. Then the distance of all around here [points to outside of circle] is called the circumference.

**Students:** Circumference.

**Figure 12. Instruction on radius and circumference**



**Mr. Reese:** Exactly. Now, I need all the pieces you've been working on. I want them all to come over to this table here. We can attach the wires to them. They look great, guys. They look terrific. Thank you so much. I'll see you tomorrow. Tomorrow we're going to do a little more sanding and we'll start flameproofing. Because this is an indoor piece, the fire marshals are very concerned about safety. So we'll flame proof them first before we start painting."

**Figure 13. Peace sign, students sanding**



**Figure 14. Hanging mobile pieces end of day 1**



## Field Notes, Day 2

The morning groups finished any sanding required and then flame proofed all the pieces with a clear, quick-drying liquid flame retardant called *Inspectashield*. Mid-morning groups begin to paint individual pieces with acrylic paint after very specific instructions from Mr. Reese as to how to hold the pieces at the base with one hand. The students were instructed to paint both sides and edges up to and around their hand, then remove their hands and paint the rest. Additionally, they were told to remember to wipe their brushes carefully on the edge of the container before painting: this was relayed in a humorous manner to get the students attention.

The students were very focused on their painting tasks as may be noted from their expressions in the following photographs. Mr. Reese had explained to the students that they may have drawn one piece yesterday, but they might be flame-proofing entirely different pieces that day and a different group would flame proof or paint yet other pieces. The third graders were doing this as a team.

**Figure 15. Students painting**



**Figure 16. Students painting**



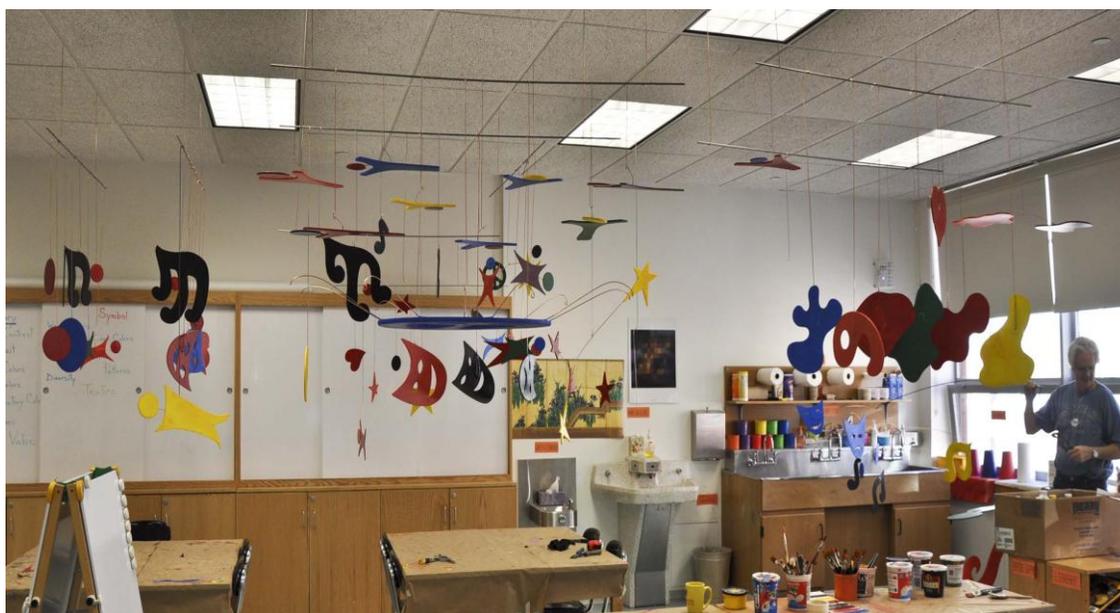
By end of day two all 91 individual pieces had been painted with flame retardant and a first coat of acrylic paint in a limited palette of eight colors.

### **Field Notes, Day 3**

All four groups came and painted a second coat of acrylic paint on the individual mobile pieces. Mr. Reese reiterated all of his painting instructions, stressing how important the second coat was, as this was the final coat, the one “people would see.” Consequently, students were to try and paint evenly and in one direction, checking that

no white spots showed through. All of the students were excited to see all of the individual pieces hanging from the ceiling. Mr. Reese also gave mini-mobile lessons of 45 minutes each to the second grade in the morning. These mobiles were made out of simple materials such as tissue paper, foil, pipe cleaners, construction paper, plastic letters, hearts and stars, glued together and attached with string to wire. Each table of four or five children worked together to create one mobile per table. The mobiles were assembled starting from the bottom up, and the children learned how to find the balance point prior to assembling.

**Figure 17. Unassembled painted mobile pieces**



#### **Field Notes, Day 4**

The third grade groups were told that this was the day to balance and assemble the mobiles. First Reese explained and demonstrated that you find the balance point by placing one finger underneath the wire near the center (the wire had a piece of foam core epoxied to each end). He kept moving his finger toward the side that was heavier until he found the balance point, which was when both sides balance evenly. The students

were clearly excited, particularly when Reese asked for a volunteer. A student came up, and with Reese's aide, found the balance point. Reese then noted that juncture, and with special pliers twisted the wire to create a loop to which the next piece would be attached. This process was repeated, with a new volunteer finding the balance point on the next piece of wire, the creation of a loop, Reese attaching it to the piece below until one or more mobiles were assembled in each class. Students gave input as to where and at what angle each piece should go with occasional guidance from Reese.

**Figure 18. Creating the hook on a wire piece**



**Figure 19. Demonstrating the balance point**



**Excerpt from Digitally Audio Recorded Lesson E, Day 4:**

**Mr. Reese:** This is what Alexander Calder did. He got better and better at it. But he

started with one rule. The one rule is you have to work from the bottom up. O.K. So I'm going to take this one. I've already found the balance point. I'm going to add, I'm going to create a little mobile, a little star mobile. So I need to find another star. I'm going to take this piece now. How do you think this piece should go? Should it go up like this? Should it go like that? (Mr. Reese is standing in front of the class, who are sitting on the rug).

**Student:** Down.

**Mr. Reese:** No, I want it to go up. Should it go in or out? Right about there?

**Student:** No.

**Mr. Reese:** No. How about right there?

**Student:** Yeah.

**Mr. Reese:** O.K. I'm going to put my finger right where you guys said. I'm going to add a little more, because I'm going to add a little more. I'm going to twist this little eyelet right here. This is straight and I want a little curve in it. Then I'm going to attach this to that point. I'm going to put my finger right where that point was and I'm going to mark it right there and then I'm going to bend this back on itself. I just put a little eyelet in there. Grab this and I'm going to hang it up right there.

**Student:** Wow!

**Mr. Reese:** Now, I'm going to add another star. Whatever size is fine. Now we could have that one go that way, or we could have it go like that.

**Student:** Yeah, yeah.

**Mr. Reese:** So how far out? You want it to go out or in?

**Student:** In. Yeah, right there.

**Mr. Reese:** We're going to mark that right there. So that's horizontal. Horizontal is flat, right? So that's called a flat point. That's fine, and we can change it. I'm just shifting that a little bit over there. All of a sudden the star's a little higher. I kind of like it going up a little bit. There's my mark. I'm going to hand this to you. I'm going to go right there and put this one back on itself. Grab that right there and hang it up.

**Student:** Cool! It moves. I think that bigger star should go towards the top.

**Mr. Reese:** Great idea. Go find me that star. Now where do we want this guy to go. You want it to go there, 'cause he could really shoot out that way.

**Student:** Yeah, yeah.

**Mr. Reese:** O.K. cool. Now this is a little bit thicker wire.

**Student:** It's heavier.

**Mr. Reese:** That's right, it's heavier. Now, put your finger out and we'll find out where the balance point is. There's the balance point. But is that where we want it? No, we want it to shoot up, right? So I'll adjust it so that thing is going up. More?

**Student:** Yes, yes.

**Mr. Reese:** That's it? O.K., great. Notice again, I'm working from the bottom to the top. I keep adding to that last balance point. O.K. If I were to add something more to this, where should I add it, to the bottom or the top?

**Student:** Top. Top.

**Mr. Reese:** Very good. Let's just demonstrate. Take this piece of wire here and add it to the top to see if it makes any difference. Did it change anything?

**Student:** No. No.

**Mr. Reese:** Now we're going to take the same piece and add it to the bottom.

**Student:** Yeah, yeah, that's no good.

**Mr. Reese:** It throws off everything, doesn't it? I take it away and it recovers. If you add something to the bottom of a mobile, it changes everything above. If you add something to the top of a mobile...

**Student:** It doesn't change at all.

**Mr. Reese:** Exactly right. You can blow on it.

**Student:** If you just blow on the bottom, it makes everything go on top.

**Mr. Reese:** (Blows). We had to wait for the air to get there. Even though I'm not near it, the air gets there and causes it to move. Isn't that cool?

**Student:** That's cool.

**Figure 20. Finding the balance point**



**Figure 21. Balance point of a large mobile**



### **Field Notes, Day 5**

The multi-media play “A Perfect Balance” was performed by Mr. Reese for the first through third grades for 50 minutes in the morning after assembling his set. No one was allowed to take photos. Mr. Reese played a young Alexander Calder trying to find his way as an artist, stumbling, by mistake upon making mobiles through his dream of being a different kind of artist. The children responded to the play so much that Mr. Reese could only be heard with difficulty at times. Mr. Reese proceeded to assemble a 17-foot mobile that swung out over the audience to excited cheering, and clapping by the entire school.

The set was dismantled and packed up. Eight mobiles were installed around the school. The students see them everyday.

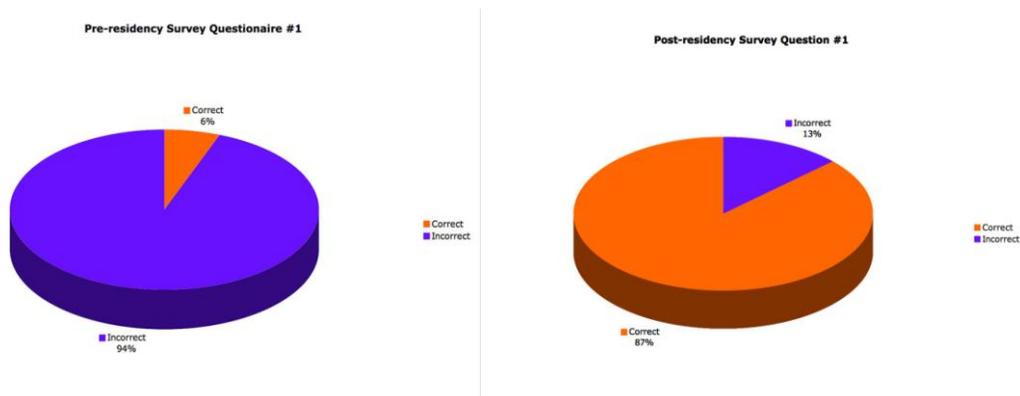
**Figure 21. Reese installing a mobile.**



### **Pre-residency and Post-residency Survey Question Results**

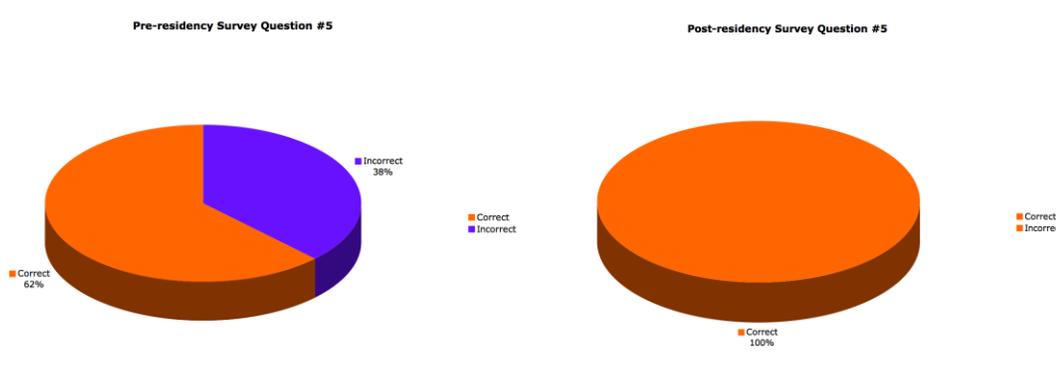
While every single question on the post-residency survey (Appendix G) had an increased correct response compared to the pre-residency survey (Appendix F), I will highlight the most outstanding results here. The pre-residency survey began with the rather complex question “How is a mobile balanced?” To which the possible answers were: 1. You start with the piece on the top, and then add pieces below it. 2. You start with the piece on the bottom, and then add pieces above it. 3. You balance them all at the same time. The correct answer is #2. Below are the results prior to the residency and after the residency: prior to the residency, 94% answered incorrectly. Post-residency, 13% answered this question incorrectly.

**Figure 22. Pre and post-residency survey question #1**



Question #5 asked, “What is a mobile?” Prior to the residency, 38% of the third grade answered correctly (mobiles are art or sculpture that moves, twirls, hangs, etc.). After the residency, 100% of the students answered correctly.

**Figure 23. Pre and post-residency survey question #5**

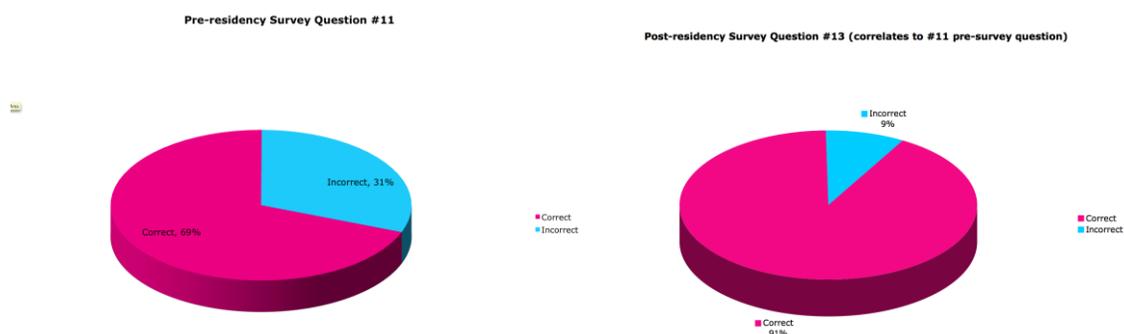


After the residency, students showed that they understood the definition of “public art” by a vast majority (93%) and the reason to have public art in their school (89%), compared with their responses prior to the residency, 46% and 31% respectively. The concept of abstraction was presented in the introductory lesson on Calder, prior to the residency. On the pre-residency survey, 54% of students could define it. Post-residency, 67% of students could define what “abstract” meant.

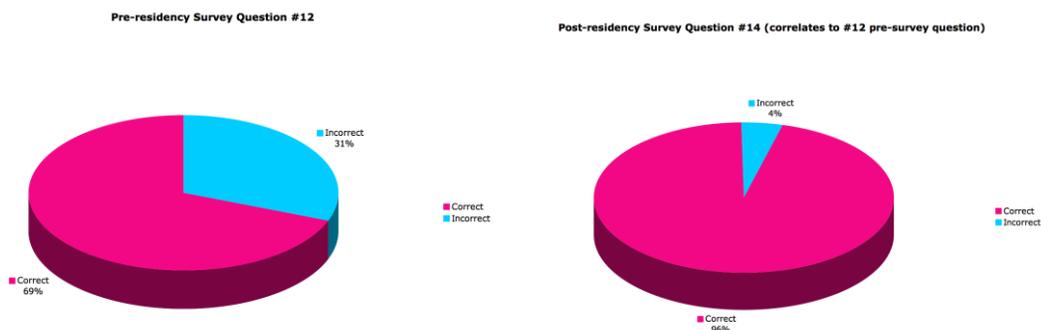
Certain life skills, concepts and questions were asked, and the responses to these changed in the pre- and post-residency survey as well. Most significant were two open-

ended word association questions: #11 “What comes to mind when you think of the word accomplishment?” (Question #11 correlates to question #13 in the post-residency survey). Prior to the survey, 69% of students answered in some form that connected to the definition of accomplishment. Answers such as “finishing something,” “trophy,” “work done,” “a job well done,” were typical. However, 31% left the question blank, wrote, “I don’t know”, or indicated a question mark. After the residency, 91% answered in a manner indicating they understood what accomplishment meant.

**Figure 24. Pre- and Post-survey question 11**



In response to question #12 “What comes to your mind when you think of the word teamwork?” as seen below, 96% of students understood the concept post-residency versus 69% pre-residency. It should be noted that pre-residency question #12 correlates to post-residency question #14, as there were two additional questions on the post-residency survey.

**Figure 25. Pre and post-residency survey question #12**

The two additional questions on the post-residency survey pertained to the students' personal opinions about the residency. The first question (#7) was "What part of the process of making mobiles was your favorite?" The students responded with a variety of answers: "painting," "painting and putting it together," "balancing," "hanging them up," "drawing the shapes," "everything," "I can't decide. There's so much that I liked," "the whole thing," "the epoxy".

The second question (#9) was "How do you think you will feel when you come back to visit the school after you have graduated, and see your mobiles hanging in the hallways?" The answers were "happy," "proud," "I will feel special to make something that will be hanging in the school for many years," "I will remember when I made it, and enjoy the art my class made," "It would make me proud of our work," "great," "excited," "cool," "good," "I will feel very, very proud," "I will be proud that all of the 3<sup>rd</sup> graders made it together."

### **Interviews**

The sixth and final point of data collection were digitally recorded interviews with the third grade students. These were open-ended questions about what their perceptions of the residency were and what, if anything, they learned. The weakness in this data collection approach is two-fold: I collected this data in the fall of 2011, prior to reading

assigned chapters on interviewing techniques in the spring term of the research project seminar. Consequently, my interview techniques were not as informed as they should have been. Secondly, I interviewed the two third grade classes as a large group, in the beginning of an art lesson. One class had come from lunch, another from recess, and both were “antsy” and full of excess energy. They were also not particularly interested in covering this material, but anxious to start a new art lesson. Consequently, the interviews were cut short, as the students were showing distinct signs of lack of interest and inappropriate behavior. In hindsight, I should have interviewed students in small groups while walking around the room as they were occupied with an art lesson that didn’t require aid on my part. However, highlights of both interviews are below, the first in transcribed form, and the second in summary form.

**Transcript of Digitally Audio Recorded Interview #1:**

**Teacher:** I’m going to ask you some questions: did you like having Mr. Reese here?

**Students:** YES!!!

**Teacher:** What did you like?

**Student:** That we learned how to make mobiles!

**Student:** Drawing them.

**Teacher:** What else? What was the best part?

**Student:** Making them fireproof.

**Students:** Painting them.

**Student:** The balancing point.

**Student:** I like putting them on top of each other.

**Teacher:** Do you mean putting them together?

**Student:** Yes.

**Teacher:** What else?

**Student:** The epoxy.

**Student:** Sanding.

**Student:** I liked all the parts.

**Teacher:** What did you think of the play?

**Students:** It was funny!

**Teacher:** What else about the play? What was the message of the play?

**Student:** A perfect balance.

**Student:** You don't need to touch a mobile to make it move.

**Student:** That you make a mobile from the bottom to the top.

**Teacher:** Yes! That's the one rule you have to know in mobile-making, that you start from the bottom, and work your way to the top.

**Student:** I think the message was that art can be anything.

**Teacher:** That's an excellent answer, and very true. But also, that you can create something by making mistakes, right? Calder created mobiles by making what he thought were mistakes.

**Students:** Nod their heads in agreement.

**Teacher:** Was there anything that you didn't like about having Mr. Reese here?

**Students:** Shake their heads no, or don't respond.

**Teacher:** So it was pretty good?

**Students:** Nod their heads up and down in agreement.

### **Summary of the Second Interview**

Students were asked what the most interesting part of the residency was, to which there were a variety of answers: “It was when we got to shape it and paint it,” “hanging, gluing,” “making the pieces,” “flame-proofing,” “painting them,” “everything.” I asked what the little 1/8<sup>th</sup> scale model was used for: “to see how big the mobile would be” was one response. Did the students choose the angles and length of each piece as the mobiles were being put together? Most said yes. Did the models look like their drawings? The majority answered yes, one answered “sort of.” Has your sense of community changed? Most answered “no.” One answered, “Yes, we had teamwork!” What did they learn? One student answered “how to make mobiles” while another replied “the balance point and how hard it is to make mobiles.”

### **Chapter Summary**

It is clear that the above presented data indicates rather overwhelmingly that the students’ understanding of what a mobile is, how it is balanced and how it is constructed changed rather dramatically from less knowledgeable to more so. Additionally, their concepts of what the terms “abstract” and “public art” means, their sense of understanding about accomplishment and teamwork improved substantially. A discussion of the implications of these findings, as well as the less measurable but no less important aspect of individual and school pride will be discussed in the following chapter.

### **Chapter Five Discussion**

As seen in the previous chapter, the results of the post-residency survey as compared

to the pre-residency survey questionnaire were particularly dramatic. In relation to the first part of the research question of this study asking what specific knowledge, concepts or skills, *if any*, do students learn during an artist's residency program at a G&T Elementary school in Brooklyn, I think we can categorically state that knowledge, concepts and skills were gained. It is the purpose of this chapter to interpret and analyze the specifics of those concepts and skills. Finally, this chapter will conclude by addressing the last part of the research question, whether such knowledge, concepts or skills justify the cost of an artist-in-residence, and implications for further research.

### **Claim #1: Personal Connections Create Deeper Learning**

The third grade students' understanding of what a mobile is went from 62% prior to the residency to 100% after the residency; only 6% of students understood how to find the balance point prior to the residency versus 78% afterward, and while 6% understood how a mobile was balanced before, 87% understood how it was achieved post-residency. I suggest that the above evidence is due to the students' sense of personal connection to and involvement in this project. Reese designed his program so that students first drew their "own" mobiles, based upon an agreed upon school theme, after an introductory lesson on Alexander Calder's mobiles was taught. The two themes chosen, the performing arts and diversity, were decided upon by the Principal, the third grade teachers and the art teacher. The students had just had a social studies unit on diversity, investigating their own cultural backgrounds, and the performing arts were chosen as the students are engaged in various aspects of the arts every week (violin, dance, music and art are all taught weekly, videos are student produced and edited, musical and theatrical performances are staged at year-end).

Each child contributed their own artistic vision and interpretation of what his or her mobile should look like (every student could decide if they wanted to create two mobile drawings—one each based upon a theme, or one drawing combining the two themes). Reese then reviewed the grades' drawings and pulled out common elements and shapes, so that the majority, if not all the students saw some obvious aspect of what they had drawn in their models. This was clearly heard in the exclamations by the third graders at Elementary School B when they looked at the models for the first time: "That's my star!," "There's my peace sign!," or "Those are the people I drew". This was also corroborated in the second interview summary after the residency where the students were asked if they recognized their drawings in the models to which the overwhelming majority responded, "yes."

Viktor Lowenfeld and W. Lambert Brittain (1987) elaborate:

"The most important consideration, in selecting topics for children...should be the meaningfulness of the activity. The more involved children become in an art activity, the more they identify with what they are doing, the more they are actively using their senses, the more the project is their own, the more meaningful it is. (p.247)

The students of Elementary School B began with themes that held some meaning for them. These drawings were melded and transformed into mobile models, the idea of theme and mobile made more real. The students then drew out full-scale pieces of those models, and working collaboratively, sanded, fire-proofed and painted. The students then, as a group, chose the pieces for the mobiles, where they would go and at what angles they were assembled. The mobiles came from personal connections and those connections were enhanced in the process of creating the mobiles, as was their

understanding of what mobiles are, how to find their balance point, and how to structurally balance a mobile, as evidenced in the post-residency survey results. This was a group effort, which leads me to the next claim.

**Claim #2: Cooperative Learning Enhances Students' Sense of Accomplishment, Self-esteem, and Teamwork.**

Given the results of the pre- and post-survey questionnaire, I would venture claim #2, that cooperative learning, based in sociocultural theory, enhanced the students' sense of accomplishment and self-esteem.

The essential components of cooperative learning are:

1) Learning is a connection making process, where the learner links new experience to prior experience in order to acquire new information and to make sense of it; 2) the learner constructs his or her own knowledge; 3) learning is an active process of interaction and experimentation; 4) knowledge is built through successive steps that build upon one another; and 5) we learn most often from others. (Marshall, 2006, p.18)

The students learned about mobiles in the first lesson, and drew them. In smaller groups of fourteen, they were told by Mr. Reese that they would be making mobiles as a grade, not as individuals. Consequently, everyone had to do a good job, because this was a group project; they were going to make "public art." The students drew, and collaboratively sanded and painted pieces, some working together in smaller groups on larger pieces. No one student "owned" a piece of a mobile: every student worked on multiple pieces in multiple phases with the understanding that this was "a team effort" (positive interdependence). The majority of students had never sanded before, so the

students checked each other's work in addition to having it checked by Mr. Reese. Students also asked each other if their painting was "good enough" or if another student saw "any spots" through the paint (face-to-face promotive skills). Mr. Reese constantly gave the students feedback regarding their work (individual accountability). The students then found the balance points and collaboratively assembled (social skills) all the pieces into separate mobiles with the essential guidance of Mr. Reese. There was a great sense of camaraderie and pride (group processing) as evidenced by the students' comments as the mobiles were assembled, and by the expressions on their faces.

The students' survey results were impressive: their sense of the word "accomplishment" was 60% correct prior to the residency and 91% correct after the residency. (I defined correct answers as responses based on the definitions given on page four which were reviewed with the students prior to the pre-residency survey or responses that clearly understood the questions. For example, in response to the question "what does abstract mean?" a student answered "something that is based upon something else but people can see it however they want to," the answer was deemed correct. Of course, there is researcher latitude here). The students' sense of the word "teamwork" rose from 69% prior to 96% afterward, a 31% and 30% increase respectively.

Also telling were the individual comments to question #9 on the post-residency survey: "How do you think you will feel when you come back to visit the school after you have graduated, and see your mobiles hanging in the hallways?" Aside from the most common answers of "proud," "happy," and "great," there was "I will feel proud that all of the third graders made it together," "I will remember when I made it, and enjoy the art *my class* made," "It would make me proud of *our* work," "I will feel proud that *my school* made those mobiles when I was in third grade" (emphasis on the self). The

comments clearly show a sense of pride and a sense of community, an awareness of having created these mobiles as a group.

In addition, the answers to question #8 “How did we work together to make these pieces of public art (the mobiles)?” further support the claim that cooperative learning aided the students’ sense of teamwork. Answers included: “We all did every step, so we all worked on it,” “helping each other,” “we cooperated,” “we did it with teamwork,” “we worked in groups,” “we worked together by doing different parts of the mobile,” “we worked together because: some people cut them out, others painted the first layer, and others painted the second,” “we all put them together,” “we sanded each other’s art and the same with painting.”

**Claim # 3: By Making Mobiles, the Students’ Concept of Public Art Expanded.**

It is one thing to define a concept, another to show visual examples of it, and yet another to create it yourself. When students actually made it themselves, in 3D, the conceptual became real. Prior to the residency, 46% of the students correctly answered the question “what is public art?” When asked “what is the reason to have public art in our school?” only 31% could reply. A broader question, “Word association: what comes to your mind when you think of the word—public art?” resulted in 60% correct responses. After the residency the results were markedly different: 93% could answer, “What is public art?”, 89% knew a reason to have public art in our school, and 91% could think of an appropriate word association in connection with “public art.”

The students clearly understand what public art is far better after the residency: they are surrounded by their own public art hanging in the hallways everyday.

**Claim # 4: The Knowledge, Concepts and Skills Gained by Students During an Artist-in-Residence Program Justified the Cost.**

At best, the last claim of this study can only be said to be subjective. We have proof, in percents and pie charts that the students' knowledge of definitions, and concepts grew. They learned about 1/8 scale models, used math to figure out the size of mobile pieces, drew the diameter of a circle with a radius half the size, understood what abstract, balance points, mobile construction, public art, teamwork and accomplishment meant better than when they started. They learned how to sand, paint carefully, and give up individual ownership for group ownership. The students learned how to make large mobiles collaboratively for their school, and their self-esteem grew as evidenced by their own comments about how they would feel seeing the mobiles on a visit after they had graduated. "I will feel very, very proud" was typical. They saw a wonderful multi-media play by the artist-in-residence that made them laugh, brought them joy, and helped them reflect.

As the art teacher, I could not have provided the students with the specialized skills that Mr. Reese has as a sculptor and actor. The same would be true if the school were to bring in an artist who was a mosaic muralist, a potter, or a glass blower. Via the artist-in-residence program, the specialized skills of artists who focus on those skills every day come into the students' world, and students' benefit from their expertise. The skills of the art teacher are, by the nature of the role, broad: one must be able to teach developmentally appropriate lessons in a wide range of mediums with artistic proficiency to K-12 students that meet state blueprint art standards and assessment guidelines in 45 minute periods that include motivation, demonstration, art activity, summation/discussion and cleanup. This is not to say that art teachers aren't artists as well, but we cannot all be

sculptors, painters, potters and glassblowers rolled into one. The exposure to outside talent opens students eyes to new possibilities.

However, the Principal of Elementary School B may have given the most ringing and concise endorsement of the value of this artist-in-residence program: "Kevin is a one man band! He comes in with a magical trunk of ideas and resources and the art that unfolds is incredible. The children are at once engaged, inspired and equipped to create masterpieces that will adorn the school for years to come. **The best enrichment money that I ever spent as a principal.** My favorite part of all: we really had fun."

## Chapter 6 Conclusion

Presently, we live in an era of high stakes standardized testing in which we seem to value the subjects tested and marginalize those that are not, including art programs (McNight & Smith, 2009). Budgets are increasingly tightened and school curriculums narrowed with many art programs decreased in many schools. With this occurrence, some communities and schools, according to Feldman (2002), have chosen to replace art teachers with artist-in residence programs. Others have actually augmented their existing art programs with artist-in residencies (Bresler et al., 2000), implying, despite additional cost, a particular benefit to these residencies. This study investigated the question: what specific knowledge, concepts or skills, if any, do students gain during an artist-in-residence program at an elementary public school in Brooklyn that justify the cost of the residency?

The artist-in-residence was Kevin Reese who runs School Sculptures a program based in Washington, D.C. In the past ten years, Mr. Reese has seen his artist-residencies increase every year, presently numbering 107 as of April 2012. Via a pre-residency and post-residency survey questionnaire, students appear to have gained specific knowledge about the definition of mobiles, how to find the balance point, and the correct structure of mobiles. By connecting the mobiles to personal themes of diversity and the performing arts which held meaning for the students, deeper learning occurred, as evidenced by an increased percentage of relevant answers to three mobile-related questions on the post-residency survey.

Cooperative learning enhanced the students' sense of accomplishment, self-esteem and teamwork. This was clearly seen in the third grade students' answers to the question on the post-residency survey concerning how they would feel seeing their mobiles hanging in the hallways upon a return visit to the school after they graduated. The comments, elaborated on in the discussion chapter, clearly showed a sense of community, and pride in having created the mobiles as a group. Additionally, by making mobiles, the students' understanding of the meaning of the concept "public art" and the reason to have public art in their school expanded significantly.

Finally, based upon the survey results, transcribed recorded lessons, field notes and photographs of the artist-in-residence process, this study claims that the knowledge, concepts and skills gained by the students justified the cost of the program. While this is a subjective claim at best, it has strong evidence behind it in the survey results. As the art teacher, I could not have provided the students with the specialized skills that Mr. Reese did. This would also be true if the school were to bring in an artist who was a painter, potter, or a glass blower. An artist-in-residence program showcases and exposes the students to the specialized skills of artists who focus on those skills every day and students' benefit from their expertise. The skills of the art teacher are, by the nature of the role, broad, and while many art teachers are artists as well, we cannot all be sculptors, mosaic muralists, potters and glassblowers rolled into one. The exposure to outside talent opens students eyes to new possibilities, new skills, new knowledge, and that in my humble estimation, is invaluable.