Other Ways of Knowing: Teachers Insight into Struggling Students' Visual Images in Response to Social Studies Text

Margul Woolfolk
ACCEPTANCE

This dissertation, OTHER WAYS OF KNOWING: TEACHERS’ INSIGHT INTO STRUGGLING STUDENTS’ VISUAL IMAGES IN RESPONSE TO SOCIAL STUDIES TEXT, by MARGUL RETHA WOOLFOLK, was prepared under the direction of the candidate’s Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree Doctor of Philosophy in the College of Education & Human Development, Georgia State University.

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OTHER WAYS OF KNOWING: TEACHERS’ INSIGHT INTO STRUGGLING STUDENTS’ VISUAL IMAGES IN RESPONSE TO SOCIAL STUDIES CONTENT

by

Margul Retha Woolfolk

Under the Direction of Dr. Peggy Albers

ABSTRACT

The purpose of this qualitative study was to explore what 4th-grade teachers could learn about African American students’ knowledge of social studies content through children’s drawings and to understand what they communicated through visual texts. This study was grounded in social semiotics and critical race theory (CRT). Social semiotics allowed for close readings of children’s drawings and interpretation of teachers’ interests in using art as an assessment tool. CRT challenges applying the experiences of White people as the standard by which others are measured. CRT was used to analyze structural barriers, such as high-stakes standardized testing, as primary in determining what students knew. Research questions were as follows: (a) When teachers are instructed in how to read images structurally and semantically, what do they learn about their low achieving African American students’ understanding of a social studies text through their drawings? (b) How do teachers understand and talk about images through the lens of sign systems? (c) How do low-achieving African American students demonstrate social studies content knowledge in a written assessment compared to how they demonstrate content knowledge in a visual representation of a social studies text?

The setting was in an urban elementary school and the study involved 4 teachers and 7 students from their collective classes. Analysis of data included constant comparative analysis and visual discourse analysis (VDA), including student drawings
and teacher/student interviews. Three findings emerged from teacher data analysis. Teachers varied in their beliefs about art as a communicative system; teachers intentionally studied their children’s visual texts differently after professional development; teachers intentionally integrated visual arts as a part of assessment in social studies. Two key findings emerged from student data analysis: Students visually represented key concepts in social studies in their visual texts and they found art to be a “fun” way to demonstrate social studies learning. The significance of this study offers insight into other communicative systems-art and specifically drawings—as a viable way to assess students’ knowledge and skills in content areas.

INDEX WORDS: Social studies, Assessment, Visual texts, Visual discourse analysis, African American students
OTHER WAYS OF KNOWING: TEACHERS’ INSIGHT INTO STRUGGLING
STUDENTS’ VISUAL IMAGES IN RESPONSE
TO SOCIAL STUDIES CONTENT

by

MARGUL RETHA WOOLFOLK

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CHAPTER 1

INTRODUCTION

Figure 1. Kindergarten and 5th grade students artistically express what I mean to them as their administrator.

“As not a man of letters” (as spoken by a tour guide at the Musca-relle Museum of Art at the College of William & Mary, referring to Leonardo Da Vinci).

**Background of the Study**

**Administrator Experience.** I have been an elementary school administrator for nine years at the same school and an advocate for the underprivileged African American students whom I serve. A large number of students in this school live in a high-poverty urban community and come with many social problems. Over time, I have come to know the strengths that students in my school bring to their knowledge and understanding of disciplinary content. A number of studies (Burchinal et al., 2011; Condron, 2009; Duncan & Magnuson, 2005; Fryer & Levitt, 2004; Jensen, 1969) have shown time and time again
that underprivileged African American students are often judged by the public and people in the educational field to be inadequate in meeting and exceeding academic expectations in comparison to White students. In fact, according to Wiggan (2007), four main explanations for racial differences in achievement have been offered: genetic differences; differences in school quality; differences in family and neighborhood environments, even among children from comparably economically disadvantaged families; and student oppositional identity. None of these explanations acknowledge that the ways of assessing students could be a factor. Currently, academic expectations on which African American students demonstrate proficiency in core content areas, are based on state standardized test scores. These expectations are aligned to predetermined standards and created by people who are remote from the life experiences of the children in the school in which I am an administrator. However, over the years, I have come to know that students in this school do not have the opportunity to show to the public what they know academically, other than how they do on standardized tests.

I start this introduction with a visual example, two images of me created by children in this school, of how I have come to know the significance of looking beyond standardized test scores to study alternative ways in which students interpret and demonstrate knowledge of content. The art teacher selected students to create an art piece as a tribute to me at a community arts festival. The art teacher selected students who enjoyed art and who were excited to present a piece of artwork to me as a special recognition. The image on the left was created by two 11-year old 5th graders and the image on the right was created by several children in kindergarten. These images represent very different and yet complex interpretations regarding my role as one of the
administrators and how I had made an impact on them (Figure 1). These images relay visual messages to me that my students have never verbalized or expressed in writing to me. For me, the portrait image on the left is in stark contrast to the portrait image on the right. These two images raised interesting questions for me: How do children respond to their everyday experiences in school? What cultural understandings about people (like administrators) do they make visible in their pictures? What do the various elements and objects mean in their pictures? How does age and experience play into their interpretations and expressions when representing people and objects? These questions led me to consider the role of images in children’s visual representations and interpretations in their school experiences, specifically social studies and the content studied in this discipline. Further, I wondered how teachers might more deeply understand what their children knew about disciplinary content from the pictures their children drew in their classroom regarding content. Specifically, I wondered, if teachers would find children’s images more significant if they knew how to read these images with a deeper understanding? How might they understand the power of image to explain something different about children’s knowledge? and, To what extent does knowledge of how children convey meaning through their pictures matter in future teaching of content?

Because of my frequent encounters with students being able to express their thoughts visually such as this, I was more aware of how students created images to convey different messages in different contexts. The images displayed in Figure 1 perhaps demonstrated more than what the students would actually say to me as one of their administrators. These types of observations led me to ponder if students who struggled in responding in more traditional ways in assessing their knowledge could
possibly demonstrate their knowledge and skills through creating images. Year after year, as I spent time in classrooms observing teachers and students, I witnessed students engaged in meaningful discussions and creative projects that highlighted their understandings of a topic. These same students, however, did not pass state required assessments. I found myself thinking, “I know that the students know the information expected in these tests.” I listened in on their group discussions in class about the topics, and I saw evidence of what they knew and were able to do in their projects. Yet, on the standardized assessments they performed below their White counterparts and appeared not to know the content at the same level of proficiency. These observations lead me to ask, “Why aren’t the students able to demonstrate a higher level of proficiency, of the standards, on the standardized social studies tests?”

For me, their lack of success on teacher/textbook-made short answer required responses, as well as state and national standardized multiple choice assessments, pointed to the singular way in which knowledge was evaluated—through responses that required them to fill in bubbled responses. Responses like these measured only what the testmaker found important, and not what children learned or understood about particular social studies events. My experiences with these children positioned me to consider study the impact of that evaluation should open up alternative opportunities for students to share what it is that they knew about content. From my initial reading of Figure 1, it seemed apparent to me that students of different ages see and visually represented the same idea (the principal) differently. Further, the objects and elements they used—at different ages—represented both representational and emotional aspects of how they saw “a
principal.” Thus, when children produce images to represent their learning of content, they also must produce representational and emotional aspects of this learning.

In this study, then, I sought to better understand how teachers might benefit from knowing more about how to read children’s images, how these images may give rise to making shifts in their pedagogy and practice, or how teachers might invite children to produce images alongside other modes of representation (writing, speaking) to express their learning. Further, when teachers learned more about how children’s images worked, they shifted their perspectives on how children are evaluated, especially through standardized measures. Having said this, then, this dissertation attempted to describe teachers’ previous experiences and interests in the arts, professional development in analyzing images (how images work, what and how elements mean), on their pedagogy and how teachers responded to children’s images with knowledge about analyzing images. In addition, this dissertation set forth to understand how children’s images produced around content specific knowledge, expressed their beliefs, understandings, and experiences through their images.

**African American Children and Standardized Tests.** Across the years, I had observed students in this school successfully demonstrate their knowledge and understanding of social studies information through creative and artistic modes of expression, as exhibited by their dramatic performances, projects, and drawings. However, most measurements of students’ knowledge and skills came in the form of standardized assessments. Most standardized assessments revealed a significant reading gap between African American students living in high-poverty urban areas and their peers from other racial groups. African American students scored below all other races,
except American Indians, on the National Assessment of Educational Progress (2015) and the Georgia Criterion-Referenced Competency Tests (2014), Georgia Milestones Assessment System (2015) in reading and Georgia Performance Standards (2015) in social studies. Education policy analyst Diane Ravitch (2010) argued that standardized test scores did not tell a full story about student learning and academic performance that related to increased levels of achievement. For instance, presentations, writings, and other performance and product-based tasks were ineffectively measured on standardized tests that relied on multiple-choice responses (Meier, 2001). In fact, according to Pewewardy (1998) and Pewewardy and Hammer (2003), assessment practices and procedures should reflect the diversity of students’ strengths and an appreciation for multiple intelligences. Schools needed to model respect for diversity, indigenous knowledge and alternative ways of knowing. Gardner (1983) defined an intelligence as “the ability to solve problems or to create products that were valued within one or more cultural settings” (p. 11). Different cultures value different intelligences. Unfortunately, many public schools in the United States largely focus on two intelligences, linguistic and logical-mathematical. In so doing this limits the chances for success and feelings of achievement for children who did not possess strengths in those areas (Cecil & Lauritzen, 1994).

In fact, since the inception of the No Child Left Behind Act in 2001, poor and minority students had been disproportionately affected by the high-stakes standardized tests measuring student achievement, hence the inaccurately labeled “achievement gap.” The standardized assessments designed to measure discrete skills, discipline-based learning and a neutralized curricula (Chappell & Cahnmann-Taylor, 2013) did not align with more democratic and creative visions of education (Jordan, 2010; Krashen, 2008).
Undoubtedly, students who had other ways of showing what they knew, other than through the standardized tests, were unable to demonstrate their knowledge in more diverse and/or creative ways. Given this, some educational theorists, such as Carter and Welner (2013), reconceptualized the term “achievement gap” to “opportunity gap” in order to shift the accountability from individual improvements in test scores to an analysis of the practices in social, political and economic institutions that denied equitable access to opportunities for minoritized students resulting in lower achievement in schools (Chappell & Cahnmann-Taylor, 2013). In the same way, Chambers (2009) stated that if one is to use the *American Heritage Dictionary* definition of “achievement,” one would summarize it to mean “something accomplished,” especially by superior ability, special effort, perseverance, etc. Therefore, the “achievement gap” would suggest that White students are superior to and more special than African American students. Furthermore, this stance would suggest that the problem lies with African American students’ ability to achieve and the decisions and structures implemented by the adults in education were in no way responsible for these results.

For the most part, traditional standardized assessments, such as the National Assessment of Educational Progress (NAEP), Georgia Criterion-Referenced Competency Tests (GCRCT), Georgia Performance Standards (GPS) and Georgia Milestones Assessment System (GMAS) have been used for evaluating districts, schools, and students. The standardized reading portion of the tests consisted of students engaging in reading passages and answering a series of questions without any way of displaying their own individualized meaning making of the text. The NAEP is a common measure of what students in grades 4, 8, and 12 across the nation know and can do in content specific
areas (e.g., reading, mathematics, science, and social studies). The NAEP testing format includes multiple-choice items and open-ended questions requiring a written response.

According to the Georgia Department of Education, the Georgia Milestones Assessment System (GMAS) is a comprehensive summative assessment program spanning grades 3 through high school. (In spring 2015, the GCRCT was replaced by the new Georgia Milestones Assessment System). The assessment measures how well students have learned the knowledge and skills outlined in the state-adopted content standards in language arts, mathematics, science and social studies. Students in grades 5 through 8 will take an end-of-grade assessment in each content area. Features of the Georgia Milestone Assessment System include

- open-ended (constructed-response) items in language arts and mathematics (all grades and courses);
- a writing component (in response to passages read by students) at every grade level and course within the language arts assessment.

The results from these assessments were used to make instructional decisions about all students. The data affected students in ways that could potentially determine how they were grouped, paced and essentially tracked throughout the educational system. However, relative to my study, both the reading and social studies assessments required students to rely on comprehension/recall and interpreting information in a print and written format to understand and respond to the questions. It is the comprehension/recall element that served as the foundation for meaning-making in both content areas.

The traditional and more standardized ways of assessing students revealed a disconnect between what students were expected to know and their performance on the assessments. Even though there was some evidence to support that the difference in scores between African American and White students may be narrowing, there was little
evidence to show that it was likely to disappear altogether (Flowers, 2007). African American students had been unable to demonstrate, on the NAEP, GMAS, or GPS standardized assessments, the same level of reading and social studies knowledge and skills that their White and Hispanic peers demonstrated on the assessments. Indeed, according to NAEP (2015) and GCRCT (2014) data, the difference in scores were lessening over the years, nevertheless the gap remained large enough to cause concern. The gap raised questions about African American students’ capabilities to learn at the same rate, as well as their overall intelligence, compared to other students. Arguably, African American students were capable of learning the information and certainly the cognitive abilities were comparable. So it was important to examine possible root causes of the measured differences. One cause could have been the method by which African American students were assessed.

The reading and social studies data points are mainly based on standardized assessments. However, standardized assessments do not effectively measure what African American students know about a given topic. In Ladson-Billings’s (1994), *The Dreamkeepers*, a teacher, Gertrude Winston, explained her frustration at the limits of standardized testing in measuring her African American students’ knowledge accurately. She argued that there was a disconnect between her students memorizing facts and responding to out-of-context questions and the actual complexity of their knowledge. The disparities were widest in higher-order thinking domains, such as deriving meaning from text and drawing inferences beyond the literal text (Murnane et al., 2006) Consequently, when many African American students were confronted with standardized assessments methods, not only were they being asked to demonstrate knowledge about information
that was many times not culturally relevant to them (Ladson-Billings, 1994), but they were also being asked to display their knowledge in a culturally unfamiliar format (Corson, 2001).

On standardized tests, Perry, Steele, and Hilliard (2003) argued that African American students were wrongly compared to a “norm group” that was defined by privileged White students who determined what was considered standard and what was not. In fact, Bourdieu (1970) claimed that schooling culture reflected hegemonic societal culture in the assumptions about behavior, intellect, and achievement implied in its pedagogy, assessment practices and even the beliefs about differential student ability. However, African American students’ “achievement gap” is not due to inadequacies and low intelligence in the students but due to pedagogical teaching and learning practices and ways of assessing. Schools where urban African American students are being educated must find ways to develop their identities of achievement (Perry et al., 2003).

National and state standardized assessments are administered to students of cultural, linguistic, social diversity (as well as other markers of social identity) with little thought to their learning styles, culture, and experiences. Furthermore, the results do not reflect what the students actually know. When assessments are conducted with students, decision-makers regarding how students are measured in terms of knowledge and ability must be open to more than written responses. Other ways of demonstrating knowledge must be considered that more closely reflect students’ everyday practices—including producing and analyzing visual information. It is the way knowledge is internalized that influences how children behave, how they learn, and how they use what they learned (Keulen, Weddington & DeBose, 1998). Consequently, one recommendation for
assessing and supporting African American and other students is a shift to authentic and performance assessments where the emphasis is on complex skills, individual growth, contextualized problems, relevance, and meaning to students (Herman, Aschbacher, & Winters, 1992).

Even more astounding is the fact that African American individuals are about 17% of the school-age population, yet are 26% and 34% of children receiving services under classifications of Serious Emotional Disturbances, Learning Disabilities, and Mild Mental Retardation, where the identification process is more subjective and educators may use standardized assessments to support the justification of these students being considered developmentally delayed and/or having learning shortcomings (Gardner & Miranda, 2001). Moreover, in special education categories such as severe mental retardation, visual impairments, hearing impairments and physical disabilities where a medical diagnosis is involved, African American representation is proportional to their percentage of the general school population (Blanchett, 2006). For me, in order to move beyond these heinous acts of educational malfeasance, educational assessment practices must include culturally sensitive assessments and use of authentic performance-based and alternative assessment procedures that view the child as an active participant (Gardner & Miranda, 2001).

**Alternative Measures of Achievement.** Standardized assessments do not necessarily determine what students may or may not understand about a specific concept. There are other ways of assessing what students know, ways that are more authentic and culturally responsive to meeting the needs of African American students. According to Flowers (2007), there are other, more valid and reliable strategies that can be used to
measure academic achievement. These strategies might take the form of authentic and performance-based assessments, such as collections of student work, projects, and written responses to texts they encounter naturally in class, that better simulate the reading practices and skills that students use on a daily basis (Valencia, Hiebert, & Afflerbach, 2015). In the same way, Gardner (1993) found that intelligence is multidimensional and cannot be measured accurately by unidimensional ability tests (Hallinan, 2001).

According to Thompson and Allen (2012), multiple measures are instrumental in determining what students know. These scholars suggest that more research is needed to identify alternatives to standardized tests that can be used to obtain similar judgments about students' abilities.

According to an article in “Education Up Close” (2005) published by Glencoe/McGraw Hill textbook company, performance assessment is a method of teaching and learning that involves both process and product. It is not just a testing strategy. Performance assessment tasks involve students in constructing various types of products for diverse audiences. Students also are involved in developing the process that leads to the finished product. Performance assessment measures what students can do with what they know, rather than how much they know. Performance assessment tasks are based on what is most essential in the curriculum and what is interesting to a student.

Recent research in performance-based assessments is especially important to me because scholars attend to multiple ways in which students demonstrate learning, including offering students opportunities to show and practice knowledge in nonwritten and visual ways, such as creating and using Venn diagrams, charts, drawings, mind maps, or PowerPoint slides (DelliCarpini, 2009). According to Kunjufu (2011), many students
fail standardized tests because they are designed for visual-print (written text with words) learners, and the students who learn by other modalities, such as visual-pictures (visual images and pictures), struggle in their responses. The following is an account by Kunjufu (2011) that supports the stance that students can convey understanding of complex concepts through their drawings:

One day a class was treated to a guest lecture from a man who had been in a war. As the gentleman was giving his lecture, an oral presentation only, no maps, pictures, or other images, he stood over one of the students who had dutifully chosen a seat front and center. The lecturer noticed that the student was doodling in his notebook. He held the notebook up for the entire class to see and said, “I hope the rest of you are paying more attention than this young man.” The student was, of course, horribly embarrassed. After class, the doodler approached the guest teacher and explained that doodling was how he took notes. He asked the gentleman to quiz him on any of the material. The guest teacher did, and the student was able to answer each question correctly. The student had drawn outlines of countries the gentleman had visited. He had drawn weapons the man had used from the descriptions given, and he had engraved them with the years the man had visited there. The doodler remembered all of the new material because he had created pictures of the details, both in his notebook and in his mind. Pictures have permanence.

Kunjufu’s example is powerful and it led me to wonder, could it be possible that standardized testing in a content area like social studies was underestimating what low-achieving African American students understood about their reading of social studies texts? Perhaps, if this population of students was afforded the opportunity to demonstrate their knowledge in a more authentic and performance-based way, such as drawing, then the images may better show what they understand.

**Visual Representation of Meaning.** One way for African American students to demonstrate their knowledge of concepts and skills, other than through more formal and/or standardized assessments, is to afford them the opportunity to represent ideas visually through drawings. There had been little research conducted on using visual
representations as a way to evaluate what primary school-age children knew about a specific topic or concept. In fact, the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State Officers, 2010) contain a reading anchor standard, in the area of Integration of Knowledge and Ideas, requiring students to understand and be able to integrate and evaluate content presented in diverse media and formats, including visually and quantitatively. This standard supports the belief that learning and communicating comes in ways that are not always written or oral.

Closely related to this concept of assessment through visual means is work conducted by Serafini (2011) regarding teaching adolescents how to comprehend visual images in multimodal texts. Serafini (2011) argued that art, like literature, is a system of meaning, and educators must “consider that there are facts, principles, rules, and ways of making and understanding art that are learned through an educational system and/or a social structure that determines how a culture sees and experiences the world.” This argument was key to this study because it supported the foundation of teachers’ gaining the knowledge and skills through the method of visual discourse analysis to understand the importance of art, specifically students’ drawings, and how they could use them to derive an understanding about what children knew. Serafini (2011) contended that teachers and students who have an understanding about how to interpret visual images would have a means of not only conveying meaning but also more critically assessing what others were conveying explicitly or implicitly in their messages.

Other assessments, including those that are visual (e.g., drawings, paintings, digital storying), provide African American students the opportunity to respond to content text visually. This is a way for them to communicate their understanding and
have some visibility in the literature. According to Eisner (1992), art, including drawings, is open-ended, it generates individual responses with no single right answer, and motivates students to participate and interact. Therefore, those students could contribute and discover a voice for their thoughts, reactions and ideas.

In 1990, after President George H. W. Bush inspired *America 2000*, there was an initiative to improve public schools by focusing on academic standards and uniform expectations. Questions were asked surrounding students who needed to learn curriculum in different ways (Ellsworth, Hedley, & Baratta, 1994). Eisner (1992) asked,

> Why do we think that all students should be measured by the same yardstick or that we will be able to calibrate the results of different tests in order to make them comparable? Why do we believe that the most important aim of education is to get everyone to the same destination at the same time? Why would a President who has made school choice the centerpiece of his platform support policies that prescribe a common set of education goals, a uniform assessment system, a national curriculum and a public report card? Why do we think that poetry, the fine arts, music, and literature have no contribution to make to the creation of a kinder, gentler America? (p.772).

In fact, Eisner (1991) proclaimed that school programs needed to develop literacy in various formats whereby meaning was conveyed through modes other than the literal use of language or written precise “standard” English. Further, students must be given opportunities to demonstrate what they know in ways other than the predominant mode of written, oral or multiple choice formats. Eisner surmised, “As long as schools operate on an essentially linguistic modality that gives place of privilege to a kind of literal, logical, or mathematical form of intelligence, schools limit what youngsters can learn” (p. 37). Alternative ways of assessing students may provide a way of drawing upon their multimodal ways of understanding and meaning making, and may open up—rather than limit, as Eisner suggested—ways to understand what they know. Alternative assessments
focus on processes used and products created by students (Albers, 2001). According to Hollins and Oliver (1999), assessment practices and procedures should reflect the diversity of student strengths and appreciation for multiple intelligences.

**Literacy and African American Children.** Educators’ understanding African American students’ learning styles, optimum modes of communicating, and what is culturally relevant to them is an important aspect of their success in school (Kunjufu, 2011). Consequently, because many African American students identify with visual/spatial ways of learning (Kunjufu, 2011), it was logical that there was a connection to drawing as a way of conveying meaning. That line of thinking suggested the value of inquiry into the practices of providing African American students a way to respond to text visually and preparing their teachers to be able to analyze those visual responses effectively. Using an interdisciplinary integrated arts-based curriculum and assessments offers some students a way of conveying and receiving information that they may not ordinarily find accessible in meeting their individual needs (Popovich, 2006).

**Bernie: A Case in Point.** A family member, Bernie (pseudonym) is now a 30-year-old African American man who dropped out of high school 12 years ago because he could not pass the state mandated social studies and writing assessments. Although he was not considered to be a proficient writer according to the Georgia 11th Grade Writing Assessment, he could draw the most intimate details regarding a text he read or heard. His drawings conveyed his understanding of the main ideas and details presented in the text. Bernie’s artistic talent was consistently acknowledged by his high school teachers and peers, yet he was never given the opportunity to be assessed for his knowledge in a content area in alternative ways. There was no access for Bernie to demonstrate his
knowledge about the content-specific text outside of traditional testing methods (e.g., tests, standardized tests, essays). Alternative ways to demonstrate knowledge, such as drawings, were not available. Perhaps, if afforded alternative ways to assess his knowledge, Bernie would not be a high school dropout who has never been able to find work above minimum-wage pay. He has daily struggles not because of his intelligence, as he passed all of his classes, but he could not obtain a high school diploma because he did not meet the requirement that he pass content-specific state mandated assessments. Students like Bernie continue to become drop-outs because of their frustration and failure to pass standardized content specific assessments. There is a need for students like Bernie to be given an option of an alternative assessment.

Another highly visible case is children’s picturebook author and illustrator, Jerry Pinkney, who struggled with dyslexia. He turned to drawing to demonstrate his ability to share his knowledge and understanding. Pinkney (2013) stated,

I perfected the craft of drawing, and leaned on that talent. Drawing shouldered the weight of my deficiency. I was putting marks on paper to learn and make peace with myself. Albeit the act of writing a note is still a challenge.

Pinkney’s personal account poignantly gestures towards the struggles that he had in conveying messages in a written format. Yet his ability to draw in the most detailed way about various subjects, including his artwork depicting historical people and events such as Young Harriet Tubman (see Figure 2), provided an example of how students, when afforded other ways of expressing their knowledge and thoughts, could be very successful in life. Moreover, this is an example of how an African American man who struggled by most academic assessment criteria focused on written responses was able to
thoroughly demonstrate his knowledge and skills by employing an artistic interpretation of the taught material.

Bernie and artist Jerry Pinkney are just two of many who may have benefitted from access to alternative assessments. In school, they were marginalized because they did not have the same abilities to communicate in written form. Being able to communicate in other forms alongside or as an alternative to written responses may provide students an opportunity to demonstrate to others a voice in matters in which otherwise they may not be able to fully participate.

Today, there are many students, especially African American students, living in high-poverty communities who are faced with the challenges of high-stakes standardized assessments (Hilliard, 2000). Through the unyielding requirement of either selecting a multiple choice response to a question or constructing a written one, students who want to convey their understanding and meaning-making in more authentic and performance-based ways are denied access to do so. Currently, there is no major push from educators
or lawmakers to use alternative ways, such as drawings, to assess students, nor is the intent of my study to make assessment changes. The goal of this study was to open up to teachers other ways of knowing-through art-and alternative ways of finding out what students knew and what their drawings were possibly conveying about a topic.

**Purpose of Study and Research Questions**

In this study, I sought to explore what fourth grade teachers could learn about African American students’ knowledge about social studies content through their drawings. Four 4th-grade teachers were engaged in professional development (PD) that focused on the analysis of visual texts. They then used the information to assess their students’ understanding of social studies content. This professional development enabled them to become more knowledgeable about learning to read images and analyzing student drawings as a way to gain an understanding about what their students knew about specific social studies information. As part of this study, fourth grade teachers learned how to examine the drawings in order to have a better understanding about the messages and meanings the images conveyed. A major emphasis of the professional development was focused on visual discourse analysis (Albers, 2007) in order for the teachers to gain an understanding about the significance of art as a language system (Albers, 2013) and subsequently how to “read” their students’ drawings. Moreover, teachers were exposed to “other ways of knowing” whereby the visual messages their students created were expressed as a significant language that was as meaningful as written and oral language. Most of the time students’ visual messages go unread because teachers do not have experience reading art, unlike their training in reading written text, therefore, this study was important to this group of teachers.
A second purpose of this study was to understand what African American students communicated about social studies through their visual texts. Just as the opening images of this chapter suggest (see Figure 1), some children expressed more about what they knew through image than they could or might be able to through writing. Further, visual texts may visually evince students’ knowledge about content in a way that written tests or assignments could not. The last purpose was to understand what African American students knew about social studies texts when their written responses/assessment were compared to their visual responses. By discussing their created images with them, more information about what students knew about social studies may have been gleaned in a way that bubbled-in test answers had not shown.

This study was guided by three questions:

1. When teachers were instructed in how to read images structurally and semantically, what did they learn about their low achieving (students who failed the social studies state standardized assessment) African American students’ understandings of a social studies text through their drawings?

2. How do teachers understand and talk about images through the lens of sign systems?

3. How did low-achieving African American students demonstrate social studies content knowledge in a written assessment compared to how they demonstrated content knowledge in a visual representation of a social studies text?

It was my hope that this study would offer teachers an understanding of the pedagogical relevance of providing their students options for meaning-making in
language and image in order for them to have access to multimodal text analysis as a tool for critical multimedia literacy (Kellner & Share, 2007). As well, teachers needed to acquire the ability to read visual images in order to prepare their students for doing so. According to Cornett (2003), students who learn to “read” art become literate in profound ways as they learn to decode the symbol systems to interpret or make meaning from visual images.

**Theoretical Framework**

This study was grounded in social semiotics and critical race theory (CRT). Social semiotics relates to contextualized and socially influenced signs and the sign-making processes of representation and communicating of the meaning from the given text. People constantly make these signs as they connect and make meaning. Interpretation and expression are key to sign-making (Kress, 1997). CRT analyzes structural barriers and how they impact people of color (Delgado & Stefancic, 2001). Moreover, CRT challenges viewing the experiences of Whites as the standard (Calmore, 1992). Five key tenets derived from social semiotics and CRT guided this study (Albers & Murphy, 2000, Taylor, Gillborn, & Ladson-Billings, 2009):

1. The representation of meaning occurs through the use of semiotic systems, and all texts—including visual texts—are amenable to analysis.

2. Semiotic systems can be of different types: visual, social, cultural, and so on, and meaning making is grounded in one’s background, experiences, and knowledge. Although, the majority population asserts its own structural and institutional stance that many times devalue minoritized’ ways of semiotic meaning making and elevates their own.
3. Literacy is the ease with which we can create and interpret the signs of one or more semiotic systems through shared meanings with others, but we also recognize that literacy has defined “standards” and is often defined through a “White” lens. Looking through a Critical Race Theory lens, I view these standards as based on what a dominant group of people value, define, and accept as information that all students should know and be able to do in and through the various types of literacy. In fact, Calmore (1992) states:

As a form of oppositional scholarship, critical race theory challenges the universality of white experience/judgment as the authoritative standard that binds people of color and normatively measures, directs, controls, and regulates the terms of proper thought, expression, presentation, and behavior.

4. Texts are ideological, and they present the textmaker’s perspectives, knowledge and beliefs.

5. Racism is ordinary and socially constructed. It advances the interests of both White elites (materially) and White working-class people (psychically).

*Representation of meaning occurs through the use of semiotic systems.*

Students become sign-makers when they draw and make representations of objects that symbolize their interest and “critical aspects” of a text (Kress & van Leeuwen, 1996). Semiotic systems are collections of elements used in relation to other elements to represent meaning. Hence, when students created their drawings in a response to a social studies text question, the choices they made to create the presentation, such as items, setting, materials and people, drew upon how these things came together to make sense in
developing the whole message the creator was trying to convey to the viewer. According to Mavers (2009), “semiotic work” is principled engagement in the making of meaning. Children, when afforded the opportunities, benefit from multiple ways of knowing. Multiple ways of knowing are not only manifested through language and words to understand and convey meaning but also involve moving beyond a linguistic mode to including other forms of communication. These other ways of communication involve semiotic theory whereby sign systems enable individuals to express meaning and to mediate the world. Harste (1994) contends that sign systems are used to negotiate meaning, and art, music, mathematics, drama, and language are some ways that children communicate meaning and mediate the world (Leland & Harste, 1994). Recognizing the agency and interest of learners in terms of their principled engagements directs attention to analyzing which meanings they have made with the resources available to them.

Access and equity in the inner-city schools are a concern and ensuring students are supported in their representation of a body of knowledge, skills and understanding valued by the society in which the school is situated is paramount. Furthermore, an assurance of not allowing overly strict regulations to curtail their creativity is vital (Mavers, 2009). Semiotics, through its use of signs and symbols to portray meaning, provides a way for teachers to gain an understanding about the messages students want to convey. Understanding children’s representations as expressions of what the sign-maker wants to express at that moment (Kress & van Leeuwen, 2001) provides teachers with additional information about what a child knows and believes about ideas, concepts, knowledge, and so on. Teachers who understand students’ drawings as a visual
representation of their thoughts and art as a language system (Albers, 2013) can only serve to more thoughtfully assess what children know.

*Semiotic systems can be of different types.* Semiotic systems are of many types—how one dresses in the morning (colors, combinations, length, formal, informal) is a semiotic system. How the elements of clothing operate together to create a single outfit is a semiotic system. How children represent meaning through writing is another semiotic system: the type of paper, use of media (e.g., ink, pencil, pencil color, marker), arrangement of words on the paper, etc. all combine to form a single system. These systems, relying on beliefs, experiences and knowledge, many times serve to legitimate social frameworks and policies that result in educational inequalities for people of color (Tate, 1997).

*Literacy is the ease with which we can create and interpret the signs of one or more semiotic systems.* However, of concern was (a) how the White, middle-class, (often male) American serves as the standard against which other groups are compared and (b) how the instruments used to measure differences are universally applied across all groups (Tate, 1997). African American students’ voices are marginalized and judged according to these established standards and ways of knowing.

According to Albers (2001), children demonstrate growth in literacy and depth of response when able to draw upon more than just written and oral language to create meaning. However, nonprint-based or visual text responses typically go unanalyzed because teachers do not understand how to make sense of the intended messages created by students (Albers, 2006). It is on this premise that this study provided the basis of engaging teachers in the process of understanding and interpreting students’ drawings,
and recognizing that the drawings conveyed messages and have the potential to communicate just as written and oral responses.

Visual Discourse Analysis (VDA) is a tool teachers used to analyze students’ drawings (Albers, 2007). VDA converges semiotics (Hodge & Kress, 1988), discourse analysis (Gee, 2014), and grammar of visual design to provide an approach to analyzing art as a language and its use (Albers, 2007). In fact, according to Albers (2006, 2007), the visual texts that students and others create contain units of analysis, including structural, semantic, artistic, tactile, and visual. Moreover, teachers who do not understand these units usually are not able to recognize and interpret the visual messages the students create. Having an understanding of VDA is vital, argued Albers (2001), because students are taught to create meaning in multiple sign systems, where schools can offer them more choices in how they represent meaning. Additionally, the more experience students have creating meaning in semiotic ways, the better they are able to represent their intended meaning. Moreover, students will be able to better interpret nonprint texts. Carger (2004) argued that art holds the potential to be a vehicle not only for self-expression and imagination but also for the expression of knowledge. According to Gallas (1994), art is a creative process to offer children broad avenues for expression and understanding in the language arts as well as in other content areas. However, according to Kress (1997), even though the use of visual images in classes is becoming more prominent in 21st century communication, within the context of school, they are often overlooked and undervalued as a mode of conveying ideas and knowledge. Thus, the elements in students’ drawings reflect what and how the creator is conveying the visual message. From my experience, I had noted that African American students who enjoyed drawing welcomed the
opportunity to visually represent their understanding of a text compared to completing a standardized assessment of their learning.

*Texts are ideological.* According to Janks (2000), all texts are ideological. That is, each text produced—including images—is embedded with the beliefs, experiences, and values of the text producer. When readers and/or viewers interpret a text, they bring their beliefs, experiences, and values to their readings. Situating reading and producing of texts is, thus, inherently ideological. In reference to images, Kress and van Leeuwen (1996) contend that understanding the meaning behind texts, such as drawings requires knowledge of and working across multiple sign systems, and that is done through systematic analysis. Harste (1994) argued that visual discourse analysis (Albers, 2007), a systematic analysis of visual text, would lead to significant insights into the intentionality behind the production and interpretation of visual images. Furthermore, according to Kress and van Leeuwen (1996), the sign-maker shows interest in what he or she understands to be critical aspects in the representation. Said another way, analysis of visual texts may, then, lead to insights into the intentions behind the making or the values and beliefs of the textmaker. CRT suggests that African American students are sometimes placed in classrooms where they are asked to conform to structures that conflict with their interests and modalities of learning, such as print-based multiple choice responses to questions and content that are embedded with the values, beliefs and experiences of the textmaker. Often these structures are based on local, state and federal mandates that are created for “all students,” but in reality are based on the dominant group’s beliefs and values.
Lukacs (1971) discussed the role of domination and how internal self-disciplining keeps marginalized people from seeking change. I interpret internal self-discipline as way a person uses strategies to not go against or disrupt what is considered the established norm. It causes them to accept the status quo, even if it means they will be kept from the benefits the dominant group will obtain. Moreover, it raised a concern when the dominant group imposed standardized tests on most students that necessitated a restricted way of demonstrating knowledge based on what the dominant group deemed as the appropriate measurement of knowing and meaning-making by students.

Studies conducted by researchers such as Peggy Albers (2007, 2009), Gunther Kress (1996), Theo van Leeuwen (1996), and Diane Mavers (2009) examined different aspects of meaning-making in children’s drawings and other multiple modalities. Yet these researchers have not specifically examined how African American students, who typically fell behind other students on reading and social studies standardized assessments, could be given the opportunity to visually represent their meaning making in response to a text. One researcher, bell hooks (Davison & Yancy, 2009) did address the differences in reading images when viewed through African American experiences and beliefs. She explained the impact of picture books on African American students when representations through objects, characters and signs in pictures depict racists, marginalizing and a dominant peoples’ iconography or standard interpretation (Davison & Yancy, 2009).

CRT challenges viewing the experiences of Whites as the standard (Taylor, Gillborn, & Ladson-Billings, 2009). bell hooks (1994) for example, argued against an Eurocentric curriculum and standardized teaching and assessment strategies, and
advocated for a multicultural approach to education through an accommodation of differing cultural values and traditions in a learning environment. In agreement with hooks, critical literacy scholar Edelsky (1999) stated,

Being critical means questioning against the frame of system, seeing individuals as always within systems, as perpetuating or resisting systems. Being noncritical means seeing individuals as outside of and separate from systems and therefore separate from culture and history (p. 28).

According to Taylor et al. (2009), by not acknowledging the historical impact of separate and unequal education, problems such as the difference in test scores between White children and children of color can be viewed as new problems as opposed to expected outcomes of intentional policies and practices. Thus, examining visual texts of African American children through their perspectives of social studies content can offer insights for educators and researchers alike regarding how systems of meaning, as Edelsky (1999) writes, perpetuate or resist these systems. Further, little research examines the role of teachers’ professional development as it relates the use of visual discourse analysis to gain an understanding about their students’ knowledge through drawings as a viable way to assess their learning.

*Racism is ordinary and socially constructed.* According to Delgado and Stefancic (2001), racism is ordinary and is central to CRT. People of color have daily experiences in most societal related encounters that tend to place them in a position of inferiority or less importance than their White counterparts. Racism tends to be institutionalized as well as subtle and blatant through every day interactions with White people. Additionally, racism advances the interests of both White elites (materially) and White working-class people (psychically); therefore, large segments of society have little incentive to eradicate it. This tenet is viewed as “Interest Convergence” or material determinism. Further, race
is “socially constructed.” That is, society uses racial categories to define and manipulate for convenience. According to hooks (1994), to turn around such racism, people of color must acknowledge originally subordinated cultural histories and provide alternative ways of being, feeling and knowing.

Social semiotics and CRT, and studies that used these theories, underpinned how I conducted this research and how I analyzed data. The CRT lens was employed to examine African American students who had traditionally been given assessments that reflected “standardized” and “normative” ways of reflecting their understanding, whereby they read passages and selected multiple choice responses and other “closed responses” without any regard to other forms of assessing what they knew.

Chapman (2007) examined classroom relationships and events using portraiture and critical race theory, looking at teachers’ interactions with students of color in urban settings and analyzing the complexities of what occurs in those learning spaces. Delgado and Stefancic (2001) argued that Critical Race Theory focuses on how people of color transcend structural barriers and create successful moments for themselves and others. Chapman (2007) concluded that blending portraiture and critical race theory research can lead to balanced research findings about students of color in complicated urban environments rather than reinstating notions of pathology and otherness.

Social semiotics (specifically visual discourse analysis) alongside CRT allowed me to examine how my African American students’ drawings could be used to determine what they knew in a way that was validated the same as standardized ways of assessing their knowledge. Critical Race Theory allowed me to look at how teachers were taught other ways of assessing what students knew in ways not usually detected by high-stakes
testing and associated score rankings that marginalized students not assimilated to the dominant culture. I had hoped that teachers involved in the professional development would become aware of and value drawings as a legitimate way of communicating meaning. I embraced the idea that visuals and other modes of expression demonstrated by students were valued in addition to the currently dominant modes of communication (e.g., written and oral).

**Significance of the Study**

Many African American students have been faced with the frustration of demonstrating what they know in a standardized manner. This study provided a way for educators to view art, specifically drawings, as a viable way to assess students’ knowledge and skills in various content areas. There is some research on art as a language and how art carries meaning (Albers, 2006). Furthermore, there is research on using visual discourse analysis to gain an understanding about what the art maker is conveying through visual grammar (2007). This study extends the literature by examining African American students in an urban setting using an alternative assessment mode via drawings to gain an understanding about their response to a social studies text. This examination opened the door to giving teachers a way to assess authentically marginalized students if that is their preferred format in demonstrating knowledge and skills. For these reasons, it was important to ensure that African American students gained access to more authentic ways of conveying what they knew. Using standardized assessments as the only way to determine achievement created an unleveled playing field for those students who could better demonstrate their knowledge through performance assessments.
Definitions of Key Terms and Concepts

In order for the readers of this study to have had a clearer understanding, I provided clarification on some key terms.

**Content specific.** I used content specific when pertaining to the one or more content areas in reading, English Language Arts, mathematics, social studies, or science. These four content areas are the most widely assessed in schools.

**Dominant group.** By “dominant group,” I referred to White people in the United States typically of middle to upper socioeconomic status whose culture is heavily influenced by individualism, a work-success ethic, an achievement orientation, and racism.

**Visual grammar.** Visual grammar referred to the conventions, patterns, structures and elements related to visual texts.

**Semiotics.** Semiotics entails the study of signs and symbols (Kress & van Leeuwen, 1996).

This study grounded in social semiotics and critical race theory will hopefully stand to answer key questions in determining if African American students who are afforded alternative ways of showing what they know, can become successful in a specific content area.
CHAPTER 2
REVIEW OF THE LITERATURE

African American Students and Achievement

In order to have a better understanding about this study and the research related to the topic already conducted in the field, I read, reviewed and analyzed studies related to African American students and the achievement gap, as well as studies conducted on the application of visual literacy with students.

According to the National Assessment of Educational Progress (NAEP), African American students have never performed to the level of their White counterparts in reading. In fact, the 32-point reading gap in 1992 has only lessened by 6 points to a 26-point gap in 2015 (NAEP). African American students continue to fall behind White students when standardized testing is used to measure their knowledge and skills. Alarmingly, many African American male high school graduates are reading at the same level as White middle school students or below (Tatum, 2005). In *Examining the Black-White Achievement Gap Among Low-Income Children Using the NICHD Study of Early Child Care and Youth Development*, Burchinal et al. (2011) concluded that the Black-White achievement gap is a developmental process that unfolds in the years prior to school entry and then is acted on by school experiences (Condron, 2009; Fryer & Levitt, 2004). According to the researchers, it is important to study the Black-White achievement gap during early and middle childhood in the settings of the family, neighborhood, and schools. The study, *Examining the Black-White Achievement Gap Among Low-Income Children Using the NICHD Study of Early Child Care and Youth Development*, Burchinal et al. (2011) was conducted to complement and extend the findings from
analyses of a large-scale data sets, such as the National Longitudinal Survey of Youth. The quantitative/qualitative mixed approach to the study addressed three related questions: (a) To what extent do reading and math trajectories in primary school differ for Black and White low-income children? (b) To what extent are differences in trajectories accounted for statistically by differences in family and nonfamily experiences before entry into school or during the primary years? (c) To what extent do family and school characteristics after entry into school predict academic trajectories differently for Black and White children?

The researchers used a developmental science theoretical approach to examine the phenomenon. This contextual approach relied on the integrative model to understand the racial differences in child development. The integrative model emphasized the separate and combined effects of experiences in the three settings over time (Garcia Coll et al., 1996). It used the critical aspects of social position, racism, and segregation in the environment of the minority child that are thought to influence the child’s experiences in the family, neighborhood and school. The study revealed that African American low-income students start school behind their White counterparts as it relates to school readiness. The gap widens once students are in school due partly to their schooling experiences, including quality of teaching and peer influences. However, further examination revealed also process and structural measures of schooling experiences were found to account for the gap during the school years. The 314 low-income students participating in the study were recruited from non-randomized hospital sites. Assessments were conducted when the child was 6, 15, 24, 36 and 54 months old and in Grades 1, 3 and 5 with individual standardized tests, observations of families and school
settings, and parent and teacher reports of behavior. Data were collected on students’
academic achievement in reading and math, demographic characteristics, childbearing
attitudes, depressive symptoms, parenting, neighborhood disadvantage, child care, school
characteristics, and early cognitive skills.

The study revealed that a substantial learning difference was present by the age 3
and both family and school characteristics played a role in widening the gap during the
school years. Additionally, the three settings of family, neighborhood, and school
structures and processes accounted for the Black-White learning differences in low-
income students. The implications for African American students during their school
years include providing students with programs focusing on improving instructional
quality (Burchinal et al., 2011). Quality instruction moves beyond the skill and drill
techniques that are many times used with low achieving African American students in the
school setting. Clearly, students who are actively engaged in learning, and teachers using
multiple ways to assess what they have or have not learned to make informed decisions
about instruction, go hand-in-hand with improving instructional quality.

Many African American students have not fared as well as their White counter-
parts on standardized ways of determining what they know and are able to do as it relates
to a predetermined set of standards. Standardized tests are normed according to White,
middle-class values and behaviors and this is the standard by which other groups are
judged (Thompson, 2007). Tatum (2005) argued that teachers must not engage in
delivering disempowering curriculum and must move beyond treating standardized test
instruments as the only valid means of assessing literacy instruction and learning.
According to Thompson (2007), many African American students have become
increasingly apathetic. Some of their apathy can be contributed to the disconnect between student interest, sense of cultural relevancy, and what and how information is taught and assessed. In fact, several aspects of school that would increase the interest of many African American students have been eliminated or drastically reduced. For instance, students who embrace the arts, including music, art and drama classes, have had less and less access. Because no test can truly measure the depth and breadth of students’ knowledge, multiple ways of assessing what students know should be used (Thompson, 2007). Thompson (2007) profoundly argued that African American students will have their brilliance overlooked and their potential misunderstood as long as society continues to judge them solely by test scores. Tatum (2005) argued educators and policymakers have focused on strategy and skill instruction while ignoring curriculum orientation, forms of pedagogy, and other factors found to be effective in increasing the reading achievement of African American students. In a recent study, Matthews and Kizzie (2010) examined the early literacy performance of African American boys relative to their peers from other race and gender groups. Using a quantitative/qualitative, mixed-methods approach, the researchers sought to critically evaluate the racial and gender gaps in literacy, with a special focus on the literacy development of African American boys and the influential role of classroom social and regulatory skills specifically learning-related skills. According to Matthew and Kizzie (2010), the term “learning-related skills” refers to a cluster of social skills (e.g. task persistence, learning independence, flexible thinking, organization, and attention control) that facilitate active and efficient learning (Howse, Lange, Farran, & Boyles, 2003).
The data for the Matthews and Kizzie’s (2010) study came from the Early Childhood Longitudinal Study-Kindergarten Cohort 1998-1999 collected by the National Center for Educational Statistics (2011). They collected data on the progress of a nationally representative group of U.S. children in kindergarten through the secondary grades using many child-centered, school context, and home environment variables. Public and private schools were included. Data were collected from individually administered cognitive tests to assess literacy achievement. Basic literacy skills and advanced reading comprehension skills were assessed. Structured telephone interviews and written surveys were used to collect data from parents and teachers.

The findings from the study confirmed the academic underperformance of African American boys relative to their White and female counterparts, but yielded that learning-related skills influenced growth in these students. In light of the findings, schools could lessen the gap by facilitating opportunities to exercise and improve learning-related skills. According to the researchers, learning related skill sets move students toward internal academic regulation that will have positive effects for achievement. However, African American students from inner city and low-resourced schools are mainly relegated to external regulation to manage and educate them. The existing structures do not allow these students to access more creative ways of learning and multiple ways of being assessed, including performance and arts-based.

**Information Processing and CRT**

A discussion (Shade, 1982) on African American students and the relationship between cognitive style and school success identified ways that African American students process information differently from other groups. According to Hilliard (1976),
African American students (a) tend to view things in their environment in entirety rather than in isolated parts; (b) seem to prefer intuitive rather than deductive or inductive reasoning; (c) tend to approximate concepts of space, number and time rather than aiming at exactness or complete accuracy; (d) prefer to attend to people stimuli rather than nonsocial or object stimuli; and (e) tend to rely on nonverbal as well as verbal communication. More importantly, teachers could evaluate these students and others with assessment instruments more likely to measure true ability. Those included oral exams, class projects, group assignments, and other simulated materials designed to provide more accurate indices of understanding and skill mastery (Kuykendall, 1991).

When certain groups of students are valued more than others, some can be viewed by educators as not being capable to meet academic and social standards. Whenever standards are imposed, the notion of power and who set the standards come to mind.

Through his historical research studies, Taylor (2009) explained how Critical Race Theory developed out of resistance to the unequal and unjust distribution of power and resources along political, racial and gendered lines in the United States and globally, with the support and legitimacy of the legal system which ultimately leads to established power relationships of society. CRT focuses on how people of color transcend structural barriers and creates successful moments for themselves and others (Delgado & Stefanic, 2001). CRT recognizes racism as not the acts of individuals, but the larger, systemic, structural conventions and customs that uphold and sustain oppressive group relationships, status, income, and educational attainment. Moreover, CRT challenges the traditional claims that educational institutions make toward objectivity, meritocracy, colorblindness, race neutrality, and equal opportunity. Critical race scholars believe these
traditional claims hide self-interest, power, and privilege of dominant groups in society (Calmore 1992; Solorzano, 1997).

Historically, CRT came about through a legal movement known as critical legal studies. However, this movement focused on doctrinal and policy analysis (Gordan, 1990). Gloria Ladson-Billings (1998) and others described how the principles of this orientation were relevant to the field of education. She explained CRT as being related to a form of law that directly addresses individuals and groups in social and cultural context in regards to civil rights. This research presents problems but does not offer explicit next steps in bringing about change in public schools. Ladson-Billings listened to and told stories to get across the points of CRT. This stance directly correlates to this study. This study raises the questions, when teachers are instructed in how to read images structurally and semantically, what do they learn about their low achieving African American students’ understanding of a social studies text through their drawings? How do teachers understand and talk about images through the lens of sign systems? And when compared, how do low-achieving African American students demonstrate social studies content knowledge in a written assessment and a visual representation of a social studies text? This study opens spaces for giving students opportunity. It suggests that this specific group of students may be denied access to various, valuable ways of demonstrating their meaning-making and understanding.

African American students are faced with many racial stereotypes. These stereotypes have a negative impact on their academic achievement. Racism and socio-economic status may play a part in what is and is not considered standard. According to a quantitative study conducted by Steele and Aronson (1995), high anxiety about racial
stereotypes and intellect among African American Stanford University students can lead to their depressed performance on standardized tests. The study revealed African American Stanford University undergraduates, unlike their White classmates, do measurably worse on tests when they are asked to record their race before taking a test or told that the test measures intellectual ability (Steele and Aronson, 1995). This study examined the problem of how stereotyping African American students affected their academic achievement.

According to Delgado and Stefanic (2000), CRT begins with the notion that racism is normal, not aberrant, in American society because it is so enmeshed in the fabric of our social order, it appears both normal and natural to people in the American culture. Race-based epistemologies and methodological approaches are important analytic lenses for educational research, especially in qualitative research, because they offer the opportunity to challenge dominant ideology, provide transdisciplinary modes of inquiry and suggest a space for insider accounts of their experiences (Solorzano & Yosso, 2002). Furthermore, according to Solorzano (1998), CRT within education is an evolving methodological, conceptual, and theoretical construct that attempts to disrupt race and racism in education.

Ladson-Billings (2004) argued that there are several areas of education open to a CRT analysis, such as curriculum, instruction and assessment. Furthermore, a close examination of these areas suggest that students from racially diverse backgrounds experience significantly different accounts of what is taught, how it is taught, and the ways school evaluate what students know. Standardized testing is ideal for a critical race examination. In fact, the implementation of standards-based learning and high stakes
testing has become the vehicle used to sort and stratify students. The test scores are viewed as reliable evidence to make such claims about particular populations. CRT must contribute to other works that help to uncover the ways that race, class, gender and overall structural inequities play a significant role in the student performance (Howard, 2014). Ladson-Billings (2004) stated that from a CRT perspective, current assessment approaches instantiate inequity and validate the privilege of those who have access to cultural capital.

Howard (2014) conducted a qualitative case study involving African American male students in pre-kindergarten through twelfth grade, describing how race and racism played as factors in their schooling experiences. He argued that privileged groups of people must be made aware of how institutional structures contribute to the disenfranchisement of various groups of people. The findings revealed that the participants were aware of how race affected them in terms of how they were perceived by their teachers and administrators in the school. The data also included ways the participants fought to change the negative stereotypes about African American male individuals. The African American students used counter-storytelling within a Critical Race Theory framework to discuss race issues and provide voice that was not present in their school environment (Howard, 2014). The study has implications for African American students and other minoritized people who are victims of oppression and inequity causing negative schooling experiences to be addressed in order to improve their educational and life chances (Howard, 2014).

There is consistent data to support the disparity in African American students’ reading performance compared to other groups of students. There is an acknowledgement
that these students require a different way of addressing their literacy needs. Studies have shown that cultural relevant pedagogy attends to some of these needs. Current literature on this subject is beginning to shed new light on how educators can meet the needs of African American students (Perry et al., 2003). More importantly, according to Hilliard (2003), we owe each child a curriculum that does not glorify others at the expense of a curriculum of inclusion.

Given this, it was important that research was conducted to gain insight into ways of authentically assessing these students that aligned to their preferred modalities and the embedded instructional pedagogical practices. There were empirical findings that inquired about the role gender and race played in responding to text. Yet there were few studies that examined how African American students visually responded to text. Additionally, there was limited research on how students conveyed meaning-making in their drawings when responding to a social studies text. Consequently, I proposed to explore a visual alternative to standardized testing in this study.

**African American Learning Styles**

The learning styles for many African American students lent themselves to be more right- brain thinkers. Kunjufu (2011) noted that many of these students used visual pictures to gain meaning from texts as well as to demonstrate their knowledge of what was read. He discussed how a student was chastised for doodling when he was to be taking notes from a guest lecturer. After further examination, the student’s doodles contained very detailed graphics about what the lecturer discussed. Kunjufu posited that visual learners who rely on visual images, notes and other information can be more effectively recalled when they are converted to pictures. Furthermore, students in the
school where I serve as one of the administrators were observed doodling in class and many were chastised for the act. Cohen (as cited in Kunjufu, 2011) described the traits of right-brain students including freedom, creativity, novelty and expressive. Gardner (as cited in Kunjufu, 2011) explained that children who were highly spatial think in images and pictures and love designing, drawing, visualizing, and doodling.

According to a nationwide qualitative study conducted by Kunjufu (2011), worksheets, textbooks, and timed tests for right-brain students were not effective ways of working with all students, especially African American male students. Right-brain thinkers benefited from using visual strategies to learn and respond. Culturally relevant teaching and assessing of those students met their needs more effectively and provided a clearer understanding about what they knew. The study findings revealed that the test score differences between African American male students and their White counterparts could be closed by affording the students the opportunity to engage in pedagogical practices congruent with their learning styles. The findings had implications for African American students being afforded teaching and learning practices as well as assessments that were aligned to their learning styles.

In a qualitative case study of two students, Lattimore (2005) posited that students, especially African American students, should be given personalized ways to express themselves in the classroom. The students’ expressions provided insight into teaching strategies that offered suggestions for teachers in channeling the energy in African American students in order to gain success in mathematics achievement. Furthermore, the researcher found that those students could provide understanding surrounding teaching strategies that motivated them to engage and learn. Implications for students, derived
from the study, included changing what students do, think and learn. Students’ perspectives must be valued. The findings of this study could transfer to all content areas as well as how student learning is assessed.

Ladson-Billings (1994) conducted an ethnographic study using four components: teacher selection, teacher interviews, classroom observations and videotaping, and collective interpretation and analysis. She relied on continuous and in-depth, classroom-entrenched observations to help her to understand the patterns and routines established in these identified highly effective classrooms. The purpose of the study was to document the practices of highly effective teachers of African American students. Ladson-Billings used the narratives of experienced and respected teachers to build a profile of their effective teaching practices with African American students. This study related to my proposed inquiry because there was an alignment between how students were taught and how they were assessed. Ensuring African American students were given the opportunity to share their understanding of a social studies text through their drawings and to have their products valued as highly as the more traditional ways of assessing students’ learning was possibly one way these same students could demonstrate success in the classroom. According to Ladson-Billings (1994), culturally relevant teaching required students to own their own learning and knowledge and to use this knowledge as a vehicle for emancipation. A part of being immersed in culturally relevant teaching and learning was allowing students to express themselves in a variety of forms, such as conversation and art.

Ferguson (2000) conducted a qualitative study to examine two ways that racial inequalities are reproduced today. He inquired about institutional practices and cultural
representation of racial differences. Moreover, he studied how institutional norms and procedures in the field of education are used to maintain a racial order and how images and racial myths frame how people are seen in a racial hierarchy. According to Ferguson (2000), institutional practices continue to marginalize or exclude African Americans in the economy and society through the exercise of rules and purportedly objective standards by individuals who may not realize their own biases. Such practices negatively impact African American students more than any other ethnicity. Therefore, requiring all students to respond to texts through standardized and formal assessments could exclude groups of students from other ways of providing insight into their understanding. Ferguson (2000) revealed he was a participant observant during his research. More important, he stated that through his interviews, he gave marginalized students a voice that provided insight into the knowledge about the contemporary crisis in education. Ultimately, through his research, he gained insight into how these students engaged in meaning-making.

Visual Literacy

African American students perform below all other ethnicities in reading and social studies standardized tests. Comparatively, African American students struggle in reflecting their meaning-making and understanding through traditional ways of responding to text. African American students may perform better if given other ways to respond to text. Responding by drawing is one way they can convey meaning and understanding of social studies text.

In an ethnographic study, Hopperstad (2010) explored children’s drawings and their intended meanings. The researcher identified “visual grammar” (Kress & van
Leeuwen, 1996) as the overarching conceptual framework for analyzing images. Kress and van Leeuwen argued that ideational, interpersonal, and textual meaning should be considered in children’s drawings. The researchers provided an analytical framework when reading and discussing visual meaning. Hopperstad’s (2010) study revealed a distinctive form of literacy among the 5- and 6-year olds by their ability to convey meaning through a range of visual resources and possibly in combination with other modes. The researcher discussed educational implications by focusing on pedagogical practice by using children’s drawings to support and promote visual literacy skills.

Furthermore, the researcher made the following claims:

1. Children should be encouraged to make meaning with drawing.
2. Teachers should support and promote children’s visual literacy by reading and talking about the meaning that drawings convey.
3. Children’s various meaning-making interests should be valued and welcomed. For example, students who may not be able to articulate or orally express understanding of a piece of literature should be given the opportunity to choose another way of conveying meaning, such as drawing. Allowing students to draw what they inferred from a social studies texts provided an alternative way to seek understanding about what they knew other than through standardized assessments. Thusly, having multiple ways to assess knowledge afforded the students access to being assessed in ways they may have found aligned to their learning styles.

Albers, Frederick, and Cowan (2009) explored the way primary students constructed their understanding of the opposite sex and how they manifested their
understanding through the visual presentations created. The study explored the way boys and girls conveyed gender specific and stereotyped messages in their visual images. The visual images demonstrated the way culture impacts the students’ viewpoints and how their own identities come into play about what they consider to be gender appropriate. The study was supported by other studies that explored visual literacy and the ability to critically read and view images. Visual discourse analysis was the theoretical and methodological framework researchers used to locate the interpretive study. The 23 third grade participants, 11 girls and 12 boys, whose visual images reflecting the end of a unit relating to stereotypes, including race and gender, were analyzed and interpreted (Albers et al., 2009). The findings from the study indicated that schemes indicated interests and experiences specific to gender. Girls were more apt to display no stereotypical elements in their images. Moreover, visual texts indicated a highly complex interplay between and among elements that pointed to personal discourse and societal discourses among gender (Albers et al., 2009). This study extended the findings of Albers, Frederick and Cowan’s study by offering teachers the opportunity to learn about the way to analyze African American students’ visual images to determine what they knew about specific social studies concepts.

Tuman (1999) examined the relationship between children’s drawing preferences for subject content, their use of formal characteristics, and their gender. The researcher sought to find if a relationship existed between gender (independent variables) and the content and formal characteristics (dependent variables) found in the students’ drawings. The researcher employed critical theory and social construct as theoretical perspectives and the conceptual framework. Fay (1987) argued a critical theory perspective is
concerned with human beings transcending the constraints placed on them by race, class, and gender. Gender constraints are examined in Tuman’s research. Moreover, the researcher stated, when *explicitly motivated*, gender traits inform and shape two contrasting culturally-rooted and socially learned approaches to the formal characteristics of children’s drawing relating to color, line, shape, texture, and space. She also argued, when motivated for gender-specific graphic responses, children do not transcend gender stereotypical behavior. Overall, the results of the study yielded a relationship between gender and the content and formal characteristics and suggests that children’s drawings show how they base their actions on social norms embedded in their culture.

Semali (2003) provided insight into how visual images are becoming more increasingly important in classrooms. According to the researcher, imaged-based communication is becoming a necessary adjunct to traditional print literacy. The researcher used the word “text” when referring to any communication, such as those produced not only by written and verbal but artist as well. Semali stated, the meaning of texts evolved as readers or viewers interacted with the texts and constructed meaning from them. These texts were located in their own social and political context. Semali discussed the way that the No Child Left Behind policy focused on standardized testing and school reform, yet school achievement was not increasing. In the study, the researcher proposed a research-based method for teaching students to read, question, and understand the visual languages of media, as well as examples of ways to produce meaning that enhanced lives and rejected the oppressive nature of texts that privileged some student voices and denied others (Semali, 2003).
Semali’s findings and implications for schools suggested that teachers and students should consider alternative definitions of literacy and to go beyond print literacy. Moreover, the researcher stated that the lack of critical pedagogy in schools created passive citizens. He urged schools to move from traditional education and curriculum and to include new forms of visual texts. These new competencies will help to define what constitutes learning and how and when it takes place. Once again, teachers will need training in the emerging visual languages.

In a critical ethnographic case study, Wu (2014) described and interpreted how an urban K-8 charter school used innovative ways, including creative art-based approaches, to successfully teach their students. Moreover, the research described and interpreted how an urban school serving diverse students from low-income families offered alternative education that moved beyond the standards-based curriculum available for diverse groups of students (Wu, 2014). The research questions included:

1. How is the school’s vision of creating an equitable education for linguistically, culturally, and racially diverse students circulated and enacted in the school policies and pedagogical policies?

2. How do students create and negotiate their identities in the context of school and in response to their experiences in school and the larger society?

The study was theoretically framed in critical pedagogy and culturally sustaining pedagogy Paris (2012); Paris & Alim 2014). The researcher explored ways that students’ lived experiences could be integrated into a curriculum to create more access to learning for diverse groups of students who are typically engaged in a standards-based approach. One innovative approach studied in the school was using cultural diversity as a tool for
learning. Students at the school had one session of art class every week whereby the teacher drew teaching materials from the students’ communities. The teacher used the students’ illustrations to communicate how an adult living in the community interpreted a proverb important to the community. Allowing these students to draw on visual literacy to communicate specific content information provided an innovative way to meet the needs of the students.

Summary

The literature supports that African American students and others are negatively impacted by educational structures not intended to address their specific needs. Allowing struggling African American students to demonstrate their knowledge and skills through non-standardized ways, such as drawing and other forms of visual literacy, is one way to provide access to this group of marginalized students. Bringing about change in the educational structures that hinder one group and bolster another to ensure equity of academic success was paramount to this research.
CHAPTER 3
METHODOLOGY/METHODS

Research Design

On most standardized assessments, African American students performed at levels lower than those of students of other races. However, in many instances, these same African American students were able to demonstrate their knowledge of content in other performance-based ways. The problem lies in the way students were mandated to demonstrate their knowledge and skills in predominantly linguistic and logical-mathematical ways. Perhaps if these students were assessed in other ways, then educators may have better understood how learning could be represented in various ways. Students who were positioned to know differently through art, may have been afforded another avenue into their understanding to demonstrate success. In this study, I examined fourth grade teachers’ engagement in learning how to analyze students’ visual images to interpret what the students may or may not have known about specific content information and thusly adding multiple ways of knowing to their repertoire of assessing students. Based on the research questions under investigation, qualitative research was the most effective approach to gain a thorough understanding of the phenomenon. The following questions guided this study:

1. When teachers were instructed in how to read images structurally and semantically, what did they learn about their low achieving African American students’ understandings of a social studies text through their drawings?
2. How do teachers understand and talk about images through the lens of sign systems?

3. How did low-achieving African American students demonstrate social studies content knowledge in a written assessment compared to how they demonstrated content knowledge in a visual representation of a social studies text?

The research applied visual discourse analysis (Albers, 2007) and constant comparative analysis (Glaser, 1965) using various data points, including student drawings, teacher and student interviews and standardized test scores. Collecting and analyzing these data were critical to the overall understanding of the research questions. 

In the following sections, I explain why I chose a qualitative approach for this study and describe the specific research design that I used in conducting the study. Subsequently, this chapter includes the context of the study, my role as researcher, data collection methods and analysis, procedures and trustworthiness of the study.

**Qualitative Research**

For this study, I used qualitative methods to research this study’s questions. Qualitative research is an investigation that examines a social situation or peoples’ lives in a particular social and cultural context. Qualitative research is context sensitive or context specific underpinned by the assumption that ideas, people and events cannot be fully understood if isolated from the circumstances in which and through they naturally occur (Schram, 2006). The researcher, in this natural setting, is the instrument of data collection. Qualitative research can be viewed as being subjective (Merriam, 2009) as the
researcher is immersed in the data and the research focuses on the participants’ perspective.

The focus on meaning in context requires a data collection instrument that is sensitive to underlying meaning when gathering and interpreting data. Interviewing, observing and analyzing are activities central to qualitative research (Merriam, 2009). Qualitative researchers use various methods such as interviews, photographs, conversations, recordings, memos, collecting and analyzing artifacts and documents, participant observation and field notes. Qualitative research is inductive where the theory emerges from the bottom up (Merriam, 2009) and observations lead to a theory. The research deals with the details and uses descriptive and expressive language. More importantly, qualitative researchers are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences (Merriam, 2009).

For this study, qualitative methods enabled me to understand in more complex ways the information that children knew about social studies topics, and the role that professional development played for teachers in analyzing children’s drawings. When only quantitative measures of describing children’s knowledge were used, educators saw only numerical scores which often told them little in terms of what children knew. This study intended to support more complex measures of knowledge including drawings and interviews to more thoroughly investigate what the students knew about social studies topics.
Context of the Study

This study was situated in four 4th grade classrooms. The teachers in this study have been teaching from between 2 to 25 years. The classes consisted of up to 20 heterogeneously grouped African American students. The students were taught using Georgia Standards of Excellence in reading and the social studies Georgia Performance Standards. During the time of the research, the students were engaged in learning opportunities focused on historical understandings. More specifically, the students were asked to describe why Africans were brought to the Americas in the 1700s. As part of the knowledge and skills students were expected to acquire by the end of the unit was the ability to describe important aspects of the journey slaves took from Africa to the Americas as well as the reasons that were brought to America.

The school is situated in a very low socioeconomic status area of an inner-city neighborhood. Students live in dilapidated houses or rented-out rooms. The neighborhood has a great deal of violence, gang activity and crime. Many students have very serious emotional problems that require external psychiatrists, a school psychologist, full-time school counselor, and a school social worker to support them. Many students have at least one parent who is incarcerated. Grandparents routinely raise many of the students. A high quality arts program is implemented in the school and the children’s’ artwork is on display around the school. The children value art and engage enthusiastically with the art lessons. Teachers frequently use art as a way to allow students to not only express themselves but to demonstrate their understanding around the various content area knowledge and skills.
Recruitment of Participants

According to Merriam (2009), participants are individuals being studied. Furthermore, the chosen identifiers have connotations related to inclusion and willing cooperation as well as ethics play a vital role (Merriam, 2009). Recruitment of participants for this study occurred after securing IRB permission. I invited all fourth grade teachers in this school to attend an informational session about this study. I talked about the research questions, data collection and analysis, VDA workshops and benefits and risks of the study. After this information session, I invited teachers to participate in the study. If teachers were interested in participating, I then asked them to read and sign and return the informed consent document. Four teachers consented to be in this study.

Recruitment of students occurred after I identified the teachers interested in the study. I sent a letter to each of the students’ parents inviting their children to be a part of this study. I explained the study and asked permission for their children to be a part of the study. I asked for informed assent from the students only after I received informed consent from their parents.

If a child’s parent did not want his or her child to be a part of the study, I did not include him or her as a participant. No student was penalized for not participating. If a child did want to be a part of the study but his or her parent had not agreed, I did not include him or her in this study.

Participants

Participants who were recruited included fourth grade teachers and fourth grade students whose parents agreed for them to be in the study. Teachers who volunteered in this study taught grade four and taught social studies as part of their position. Teachers
who volunteered to be in this study were invited to participate in two 3-hour visual
discourse analysis professional development workshops. They learned how to read and
analyze children’s drawings to understand what knowledge was communicated visually. I
recruited teachers who varied in years of service and teaching styles. They ranged in
years of experience between 2 and 25 years. Collectively, I hoped to have recruited
teachers who represented a balance of traditional teaching methods yet embraced
innovative and creative learning opportunities when they were presented to them.

Fourth grade students also were recruited to be in this study. Inclusion criteria for
students in the study included African American male and female students from fourth
grade classrooms who ranged from 9 to 10 years old. All of the students participating in
the study had passed the reading portion of the state standardized assessment and failed
the social studies portion. Students’ participation in this study was optional because they
may or may not have chosen to draw a response to the written social studies questions.
Students who volunteered to be in the study and create drawings were randomly selected
and used to assess the understanding of specific social studies standards. The questions
used to assess the students’ understanding of the social studies content were selected
from the social studies textbook because some questions did not lend themselves to being
visually depicted.

To ensure the identities of the participants were protected, pseudonyms were
assigned to the student and teacher participants. The teacher participants were assigned
Gail, Milton, Halley and Shelia. The student participants were assigned Jay, Tani, Joe,
Ed, Nehe, Don, and Jan. The participants were presented as fourth grade teachers and
students situated in the school environment. The participants were captured in the study through their responses, actions, drawings, texts and interactions with one another.

As a researcher, I became acquainted with the value of visual drawings to support educators’ understandings of children’s knowledge in university coursework, particularly visual discourse analysis (Albers, 2007). Over the years as one of the administrators of the school in the study, I had supported arts-based work, and had encouraged teachers at the school site to work with the arts to teach. Therefore, this study was apt in that children could demonstrate what they knew through alternative means other than standardized tests and how teachers were poised to consider alternative means for learning more about what their children knew by understanding what was communicated through visual means.

I was the researcher of the study as well as one of the administrators of the elementary school in which these students attended and teachers worked. Only teachers who voluntarily agreed to be in the study participated. To ensure that there were no power issues between myself and the teachers presented during the study, another administrator was the teachers’ primary evaluator for the entire school year. I did not evaluate the performances of any of the teachers involved in the study. Moreover, all of the teachers participating in the study indicated interest in finding out if their students could benefit from alternate ways of being assessed, including arts-based performance assessments as a multiple form of adding to their understanding of what they knew about a content specific topic. Further, with the school’s emphasis on arts-based instructional approaches, this study did not interfere with regular instruction.
In the role as the qualitative researcher and one of the administrators at the school I was faced with confidentiality constraints (Baez, 2002). Masking the identity of the school, participants, and students was of utmost importance. However, according to Baez (2002), qualitative research should be transformative, as the researcher. I had to be open about my own interests in shaping the way in which assessment in this school was viewed. In this study, I served as an advocate for students in this school, and I hoped this research would change the way this school viewed assessment of children’s learnings. Such advocacy, according to Baez (2002), should serve emancipatory efforts to resist oppression, and move scholars to disrupt the privilege given to confidentiality (Baez, 2002).

**Procedures**

The study took place over 6 weeks, and data included student drawings, teacher interviews, and student interviews. To investigate the research questions fully, I began this research by conducting interviews with the teachers to find out more about their art experiences and whether or not they had used art in their classrooms and whether or not they had experience analyzing visual images. Interview questions are provided in Appendix A.

Teachers engaged in 6 hours of professional development (PD) that included two face-to-face sessions with an instructor in order to gain an understanding about how student drawings carry meaning and provide information. An expert in VDA, Dr. Peggy Albers, conducted these workshops, and teachers had hands-on experiences studying and analyzing visual information presented in children’s drawings. I hoped that through this PD, teacher-participants would gain insight into how visual texts and or images consist of
grammar and syntactic structures that make up a language. Table 2 shows the timeline that I followed while conducting the study.

Following the teachers’ professional development, unit implementation and students drawing about the topic, I interviewed the students about their visual texts. A protocol for these interviews is provided in Appendix B. With this information in hand, I then conducted a semi-structured group interview with the teachers about their students’ visual texts and their perception regarding VDA as another source of information for learning what students could share about what they learned and knew about content.

Before the professional development occurred, I conducted a semi-structured group interview with teachers to discuss their students’ visual texts along with their perceptions regarding visual discourse analysis as another source of information for learning what students could share about what they learned and knew about content. Even though the teacher participants had some informal awareness in regards to understanding students’ drawings convey meaning, a more in-depth understanding about how to analyze them was necessary to determine the extent of their knowledge of the content.

Professional development was conducted by Peggy Albers in two 3-hour sessions after the regular school day and located in the school’s professional development room. The first session was designed to teach the teacher participants how to read images through visual discourse analysis. This session taught the teachers how to read images using professional texts like artworks and advertisements. Artworks and advertisements were used because Dr. Albers felt that the teachers would have an easier time understanding some of the concepts with those types of texts.
Dr. Albers probed the teacher participants to determine whether they had students draw and discuss their artwork in social studies. Teachers explained how students had been given the tasks of drawing images related to the social studies content to determine what they knew to be “right or wrong” about the information taught to them. One teacher (Shelia) described the assignments as not being “free” but restricted students to linking the social studies events and key facts in the drawings.

Dr. Albers explained to the teachers that her interest in teaching them to read art was to have them understand that art teaches us to recognize our world in certain ways so we learn how to be women, men and children. Moreover, she argued, we learn from different kinds of texts, whether it’s the McDonald’s logo, advertisements, how and why children become interested in different activities, learn different values, and how to become consumers, etc. Dr. Albers stated, “I think who we are is about what we read and see in our visual world because we are immersed unless we have some visual impairment. We’re going to learn more about who we are and who we can become from the visual images that we take in outside of the written word.”

The teacher participants engaged in a close reading activity (Albers, 2016) and discussion of various art texts using the grammar of visual design (Kress & van Leeuwen, 2006). Teachers became familiar with the areas of a canvas and what they meant (e.g., top & bottom, left & right, vectors, gaze). Dr. Albers facilitated a task whereby the teachers used the definitions of key words to describe the areas of a canvas to analyze a piece of art. For instance, using a Christopher Columbus and Native American type image, the teachers discussed elements of the art piece such as the Effective Center of Attention, characters’ gazes, colors, line types, points of exaggeration, vectors, and
ideal/real/given information displayed in the picture. An analysis of the art piece revealed the social studies content and the underlying messages conveyed to the visual readers. There was a period of probing questions and deep discussion surrounding the Christopher Columbus and Native American image. Moreover, the discussion led to an awareness regarding biases, level of transparency, and how visual images, such as art pieces, contributed to United States’ building its own national identity. This discussion transferred to an understanding that text presented to students in various ways (e.g., textbooks) should be read critically.

The task of reading the aforementioned art piece served as way to make connections for the teachers as to why it is important to have students read and create images with the understanding that they convey messages. To further the discussion, Dr. Albers used a student-created drawing to demonstrate how to analyze visual texts with the teacher participants. Displaying a picture of a child playing baseball, Dr. Albers invited teachers to “read” the drawing. The 5-year old student who created the drawing had written the statement, “I lik basball.” next to the picture. Dr. Albers used a probing technique to have teachers understand how visual texts can add more meaning to written text. The following highlights from the dialogue occurred between Dr. Albers and the teachers:

<table>
<thead>
<tr>
<th>Albers</th>
<th>So here’s a little five year old, he’s written this text, what do you think it says? (shows only the written statement by the child on the PowerPoint slide).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>I like baseball.</td>
</tr>
<tr>
<td>Albers</td>
<td>Ok, so what do you know about him?</td>
</tr>
<tr>
<td>Shelia</td>
<td>He likes sports. He does not know the silent e; he writes the letters he can hear.</td>
</tr>
</tbody>
</table>
Albers: Ok, good. So, he’s actually learned some linguistics, hasn’t he? Ok, what else do you know about him? You know he likes sports.

Gail: He understands capitalization. He understands spacing. He understands sentences. And he knows who he likes, so I’m assuming he does understand how to make connections between things that he likes, meaning he must understand the qualifier of why he drew something.

Albers: You’re the first group that I’ve ever heard that really talked about the linguistics of the sentence. Ok, so we know a little about him, don’t we? So we know that he likes sports. We know that he likes baseball. (Dr. Albers reveals the image that went along with this text). So, once we see his picture, now what do we know about him?

Shelia: He likes baseball for sure. We know he likes baseball.

Halley: The position. What kind of position?

Teachers: Catcher.

Albers: How do you know it’s a catcher?

Gail: Because of the mask.

Albers: Yeah, Ok, so the mask.

Gail: The bigger glove, like what catchers wear.

Albers: What else?

Gail: The gloves.

Albers: And what do you notice about the gloves and the mask?

Shelia: They’re catching the ball.

Albers: Yeah, well, they’re pretty authentic. Aren’t they?

Gail: Yeah.

Albers: Isn’t it clear that he plays in those—mask and the gloves. But do you notice that the two gloves are different.

Gail: Yes

Albers: Do you think a catcher? Why do you think the second glove?

Gail: Because I know sometimes they have on a regular glove and then the catching glove is a bigger glove

Albers: Glove to help grip the ball.

Albers: What else do we know about him?

Shelia: He’s on a team.
Albers How do you know that?
Halley & Shelia Looks like there’re symbols on the uniform.
Albers Ok, on his arm. He’s left handed, isn’t he?
Albers He’s kept the glove on his left hand.
Shelia No, but he’s right handed. If the glove is on his right hand, he’s
catching with his left.
Albers Yes, he’s right handed. What do you think? This is the baseball?
What do you think is this concentric circle?
Halley Is it the pitch automatic pitching?
Albers It could be. That’s a good guess.
Shelia I was thinking that it’s the target that he’s throwing to.
Halley & Albers The home plate?
Gail But the catcher is behind the home plate. He would be throwing
to the pitcher. Right?
Albers Or the pitcher might be throwing to him.
Gail You mean like a strike?
Albers It could be.
Milton Oh, cause he’s standing up.
Albers What kind of balls do pitchers throw?
Teachers Fast ball, curve ball, change, sliders.
Albers Ok. So, what we know is that this ball is not coming straight.
Gail So that’s the swirl of the ball.
Albers He’s got a twist on the ball, doesn’t he? So what that means to us
is we can ask this child different kinds of questions now. It’s not
just about writing, “I like baseball”.
Albers What else do we learn about him from his picture? This works
across all ages. I don’t think it just happens to be little
kindergarteners. This information can tell us more about what
they know other than, “I like baseball”. So now we can ask the
students different questions, such as what might we ask this boy?
Gail So what type of pitches do you like to throw?
Albers What else?
Shelia Are you on a team?
Milton What position do you like the best?
Gail What do you like about the catcher position?
Albers: What’s appealing to you as it relates to that?

Albers: So now we’ve got a conversation going. We can encourage that child to actually build upon what he knows. So if we were just to use that sentence, I like baseball, he might not know where to go with that.

Shelia: He might just say, “I like baseball. It’s fun.” We stunt their growth in that sense.

Albers: We have another way of actually knowing what he knows. And I think that’s what’s real critical for me. So art for me becomes a, a real communicative event. It’s not just this Friday afternoon let’s put it on my mother’s or father’s or guardian’s refrigerator. Let’s take it home and not talk about it. For me it’s critical that we talk about their images with them so that we understand, whether it’s social studies, math, English Language Arts and social studies. Social studies is so full of primary sources that we can really talk about them.

As this discourse reflects, the picture provided more information regarding the student other than “liking baseball.” Similarly, it is my belief that students who were afforded the opportunity to draw and write their responses would add more understanding about what they know about the content.

What this professional development afforded was a method by which teachers could analyze children’s images more deeply and with more insight. Teachers attended to the objects, position of the objects on the image, colors, size of objects, vectors—or the movement of objects and elements in an image, intensity of application of medium (how hard or soft a medium is applied), among other structural aspects of the image. Further, they learned that images also carry meaning and are meant to impact viewers’ responses. Perhaps, evident from the above discussion was a different awareness of how the image worked. Teachers learned to read the elements on the image and what they meant. They saw how different objects (e.g., glove, symbols) and elements (e.g., ball swirling) interacted to tell a more complex story of the child’s depiction of baseball than his simple
sentence, “I like baseball.” After the professional development, teachers were highly interested in applying this learning to their own children’s images.

**Data Collection**

Four primary sets of data were collected and triangulated to generate findings for this study: Semi-structured interviews with teachers and students, students’ drawings, standardized test scores and researcher field notes. Data collection commenced after prospectus and IRB approvals by the university and the school district. Data collection occurred during one semi-structured interview with the teachers (focus group) before the professional development, one semi-structured interview with teachers (focus group) after the professional development, students’ visual texts, and individual interviews with students about their created visual texts. Sixteen students participated in this study. This number was sufficient to get a sense of how social studies knowledge was conveyed through visual means and whether VDA supported students’ verbal expression of what they had conveyed visually.

**Semi-structured interviews.** The primary source of data collected for this study was through semi-structured interviews (Merriam, 2009) with teachers and student participants. According to Merriam (2009), semi-structured interviews are good because not only can the researcher use a predetermined set of questions but also he or she can respond to the situation at hand, to the emerging worldview of the respondent, and to the exploration of new ideas on the topic. Semi-structured interviews were appropriately aligned to address the research questions guiding this study. The interview questions were used in flexible ways in order to gain an understanding of the phenomenon being
explored. These types of interviews are guided by a list of questions, yet there was no predetermined wording or order to the questions (Merriam, 2009).

Two focus group interviews were conducted with the teachers in this study. The teachers came together in a group for one hour to discuss their experiences related to the research topic. According to Merriam (2009), the data obtained from the focus group is socially constructed within the interaction of the group. Moreover, the purpose was to obtain high quality data in a social context where people could consider their own views in the context of the views of others (Merriam, 2009). The first interview invited teachers to consider their experiences with art and how they engaged in art in their daily classroom practices with students. The second interview invited teacher-participants to consider the professional development that they received in VDA, to what extent they applied this learning to the reading of their students’ drawings and their perceptions regarding the role of art to convey knowledge in the classroom.

For student participants, I conducted one interview with each of them after they had completed their drawing. With their drawings in front of them, I invited students to talk about what information they were conveying through their image (see Appendix B). As suggested in VDA, I specifically asked questions about object placement and size, use of colors, use of symbols, placement of symbols, orientation of the picture, among other analytical aspects associated with studying visual texts through VDA.

I digitally recorded interviews with both students and teachers. Digital recording enabled me to return to the data multiple times, notice how students talked about their visual texts (e.g., Are there areas that their voice gets more excited than others? Are there pauses in their voices when talking about an object?). Digital recordings of teachers’
interviews enabled me to capture where in students’ texts they understood knowledge was being conveyed, what aspects of a visual text they found interesting, among other comments.

**Students’ Drawings.** Another data set used was the children’s drawings after they had completed a study on slaves’ coming to the Americas in the 1700s. The drawings created by the students were data that I analyzed in order to understand the research questions guiding this study. According to Merriam (2009), data found in documents and artifacts can be used in the same manner as data from interviews and observations. Stanczak (2007) argued that visual documents are a data source and a means of presenting the findings of a research study. As part of this study, students were afforded the opportunity during the school day to describe to their teachers what their drawing depicted.

As teachers in this study already implemented arts-based work in their classroom, drawing their understanding of this social studies unit was not unfamiliar to them. The teacher participants asked their students to draw what they had learned about this unit of study. The students were given full class periods to create their drawings. Media they used included pencils, crayons and colored pencils. The teachers collected the drawings at the end of the unit. As the researcher, I also had access to all of the drawings at the end of the unit.

At the same time, both the teachers and I studied their own students’ drawings using what they learned about VDA in their PD. The teachers wrote their analysis on a specified note-taking form to capture the interpretation of each student’s drawing. This
became data that I studied in order to understand the extent to which teachers used VDA to learn more about children’s knowledge of the social studies unit.

**Field notes.** This study also relied on field notes that I had taken mainly during the professional development sessions. According to Merriam (2009), this is one of the methods through which raw data is obtained, offers another set of data that is then triangulated, and is part of where the study’s findings eventually emerge. I wrote field notes following the protocols developed by Taylor and Bogdan (1984), while observing participants for data collection and writing subsequent field notes:

- Pay attention.
- Shift from a “wide angle” to a “narrow angle” lens by focusing on a specific person, interaction, or activity.
- Concentrate on the first and last remarks in each conversation.
- Mentally play back remarks and scenes during breaks in the talking or observing.

Furthermore, it is important for field notes to be highly descriptive and for the researcher to be reflective (Merriam, 2009).

It is vital that the data sources effectively and appropriately lead to a direct alignment to answering the research questions guiding the study. Table 1 shows what and how the data sources led to answering those research questions.
Table 1

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Sources</th>
<th>How they help me investigate this question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When teachers are instructed in how to read images structurally and semantically, what do they learn about their low achieving African American students’ understanding of a social studies text through their drawings?</td>
<td>• Focus group debriefs</td>
<td>• Through teacher conversations, I could better study to what extent VDA offered insights into their understanding of what students knew through their drawings.</td>
</tr>
<tr>
<td></td>
<td>• Student and teacher drawings</td>
<td>• Debriefs helped me know whether VDA was an important tool in future instructional choices.</td>
</tr>
<tr>
<td></td>
<td>• Field notes</td>
<td>• Drawings enabled me as a researcher and administrator to see if students could convey knowledge about content that could not be captured in standardized test questions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Field notes allowed me to study how and what teachers found interesting/important/challenging about VDA and arts-based integration in social studies.</td>
</tr>
<tr>
<td>2. How do teachers understand and talk about images through the lens of sign systems?</td>
<td>• Interviews</td>
<td>• Students conveyed what they knew or did not know about specific social studies content through their drawings comparatively to a written and constructed response</td>
</tr>
<tr>
<td></td>
<td>• Student drawings and written and constructed responses to social studies Check for understanding</td>
<td>• Students pointed out what they learned not necessarily what was tested</td>
</tr>
<tr>
<td>3. When compared, how do low-achieving African American students demonstrate social studies content knowledge in a written assessment and a visual representation of a social studies text?</td>
<td>• Standardized test scores</td>
<td>• Students helped the teachers and I understand which parts of the content they find interesting or not as well as misconceptions related to the content.</td>
</tr>
</tbody>
</table>
Data Analysis

This qualitative study used a constant comparative method of analysis for interview data (both spoken and visual) and visual discourse analysis (Albers, 2007). In 1967, sociologists Glaser and Strauss described Grounded Theory methodology as a form of qualitative analysis whereby the researcher, the primary instrument of data collection and analysis, uses inductive processes to derive meaning from the data. The inductive process leads to a theory emerging from the data (Merriam, 2009). According to Merriam (2009), data in grounded theory studies can come from interviews, observations and a wide variety of documentary materials. In this study, I collected, coded and analyzed data while comparing and contrasting the various data points. After thorough analysis of data, I hoped to generate and add to existing theory on how knowledge is constructed through visual means.

It is during the analysis that I used constant comparison to identify the similarities and differences unfolding and categories developing (Schwandt, 2001). I drew upon analysis of one set of data to guide analysis of the next set (Charmaz, 2002). For example, if both teachers and students identified an object as conveying facts, concepts, or beliefs about why slaves were brought to the Americas in the 1700s, I coded this as information carried by objects articulated by students and teachers. I coded students’ talk about the visual texts for information that they identified as important. I probed students for as much detailed information possible (e.g., can you tell me more about why you used the color red here?) until students could tell me no more about their image. Once they had finished sharing their insights, I shared my analysis of the visual texts and, if different or expansive, I again prompted them to talk about what they saw in the image after I had
shared my analysis. During the final focus group interview with teachers, I probed them to share what they learned about their students’ drawings through the VDA process. This analysis enabled me to see to what extent teachers understood VDA as an analytical tool for determining what students knew about content.

Visual data was analyzed using visual discourse analysis (Albers, 2007), a systematic analysis of visual text. According to Albers (2007), visual discourse analysis is a general term for an approach to analyzing art as a language and its use. It is based on a theory and a method of studying structures and conventions within visual texts and identifying how certain social activities and social identities come through in the end product. An example of visual discourse analysis is presented in Chapter 1, where I discuss how I was represented visually to two different age groups of students.

Specifically, I looked for the following:

- Visual grammar (e.g., placement/size of objects, vectors, colors, orientation)
- Content (What do the objects mean and say in the context of the overall representation of objects in the image?)
- Ideological messages in visual texts (e.g., What beliefs do children have about the content?)

I used VDA to study students’ drawings and looked for common art elements (objects, lines, colors, organization, etc.) that appeared within a visual text and across all student drawings. I asked teachers to use VDA to study children’s drawing and together we talked about what we gleaned about students’ knowledge by reading visual texts more systematically. Below, I describe how I analyzed visual images using VDA. I use the two
pictures from Chapter 1, followed by an analysis of one of the children’s images they
drew from social studies content.

**Reading Children’s Images**

With the professional development in mind, I return to the images that started this
dissertation to suggest that images can be read through structural analysis as well as the
more common aesthetic analysis. As I mentioned earlier, the images in Figure 1 were
drawn by students in the school of me as one of the administrators. The text in both
pictures was not written by the children, but the art teacher who oversaw these pictures.
Both written texts were in appreciation for the work I had done at the school.

*Figure 1.* Kindergarten and 5th grade students artistically express what I mean to them as
their administrator. A box has been inserted to protect anonymity.

In like manner, as shown in the professional development, I read Figure 1 more
closely, applying the grammar of visual design (Kress & van Leeuwen, 1996) and visual
discourse analysis (Albers, 2007), as well as drawing on other analyses from Dondis (1973) and Bang (1991). Visual discourse analysis not only enables viewers to read the structural aspects of an image, but the discourses that underpin it. For example, in the case of the child who drew himself as a baseball player, he not only showed what he knew about baseball and being a catcher, but the size and attention to detail indicated that he understood the discourse, the talk and vocabulary, around baseball. Further, he conveyed the conventions of baseball—the Discourse—the uniform, the stance, the movement of a pitch, and so on, that society as a whole accepts and knows as part of this sport. According to Dondis (1973), large curved lines represent warmth and comfort (e.g., heart, wedding rings, Olympic conjoined circles), while angles and straight lines suggest formality and structure (e.g., buildings, desks). In her book, Picture It, Molly Bang (1991) suggests that strong thick angular and straight lines suggest foreboding, and use of color can incite emotion (e.g., red—anger, yellow—warmth, friendship).

Key to using visual discourse analysis was having an understanding into how social semiotics was used. In other words, along with the symbols and signs depicted in the image, social semiotics suggest culture, beliefs and experiences all play into interpretation and production. Furthermore, it’s not happenstance that an image follows the design of communicative texts like narratives or expositions. Children will repeat visually virtually the same structure as narrative written text. In fact, artists teach us to see and read, i.e. advertisements and applying grammar of visual design elements such as the top represents “ideal” and the left “given” on a canvas. Additionally, learning structures in visual text is by being immersed in a world of visual imagery. It is
consumed and reproduced often without instruction or critique, for instance, use of color/symbols to represent, i.e. red heart and red roses represent love.

In this study, hand-in-hand with social semiotics, critical race theory comes into play as images are produced and/or interpreted when symbols are used to represent culture through such elements as position of bodies, gazes of the eyes, intensity in which something is represented. Therefore, how images are represented through race offers yet another perspective. For instance, an image of a frowning African American teenage male standing alongside a police car may be read as a negative police encounter as opposed to a police officer providing assistance to an African American male who lost his wallet.

Analysis of Figure 1. To further demonstrate the application of grammar visual design and VDA, I included an analysis of my interpretation of the students’ drawing of me as their administrator (see Figure 1). The image on the left created by two 11-year old 5th graders conveyed a very formal, authoritative, albeit caring, look of me. This image represented me sitting in front of the entire school building, in a school blazer embellished by the formal school crest. The school, with its straight and angular lines suggests a formal space, one that is organized and one that indicates important work is done there. My dress presented a more conservative and rigid look that seemed to express more importance with following school dress codes and rules. I interpreted this image as a way of the 5th grade creators conveying that they viewed me as an authoritarian rule enforcer. This followed a logical line of reasoning because usually my frequent interactions with the 5th grade students entailed discussing their ability to follow the school rules. In this image, I had a smile on my face, looked directly at the viewer with
caring eyes and the strong bold colors indicated a strength in my leadership. Further, the foregrounded portrait indicated that I am the leader of the school in the background. The statement presumably motivated by teacher talk, “Making a difference in the lives of students,” indicated that these two students appreciated the commitment that I, as an administrator, had to this school and the children who attended. Yet, this portrait did not have students in the image. Both the written text and the image conveyed a more complete representation of the children’s interpretation; the written text alone did not carry who I represented as an administrator in the image. The visual alone did not convey a message of “thankfulness to me.” Further, children drew upon symbols and colors to represent their understanding of me and the school. The flag flying in front of the school lets the viewer know this is an American school that follows the practices of the country. The color yellow suggests happiness and warmth (e.g., the happy face, daffodils, sun). The yellow blouse I wear and my matching colored earrings suggest that these children saw me as a warm and happy person, and one who understands fashion—what with my matching yellow earrings! Further, blue is often the color of conservatism, especially in dress. One who is professional wears blue or black to show their importance.

Most interestingly, these children visually represented what they perceived “how an administrator should look.” While they captured my outward appearance, they also represented the Discourse around how an administrator should look. Administrators, as a Discourse, often must dress professionally, in nice suits, well-kept and tidy appearance, and for women jewelry. The status of an administrator also is visually represented as a portrait, again another gesture towards the discourses that underpin who is considered important in the school. Much like other portraits, I am associated with the object which
most directly explains my position—the school. Like the school, the administrator is as well-kept as the school grounds. What’s interesting about this image, however, is the intention of the children to convey what they perceive as an ideal school, one with a large and spacious grassy area in front of the school. However, in actuality, in front of their school is has a turnaround lane to drop off and pick up children. There is a small patch of grass that stretches alongside the road, but the front of the school looks nothing like what the children depicted. At this age, these children have developed, or subsumed through cultural knowledge, a more formal understanding of the role of administrators, and how they should look and act.

In contrast to this image, the portrait on the right, created by several five-year old kindergarten students, presented a more whimsical, fun-loving, happy and nurturing administrator. The image gave the larger than life and “sunny disposition” portrayal of me. My portrait is more salient and centered in the drawing. In my reading and examination of this image based on visual discourse analysis, I am a more important, yet fun-loving figure to the kindergarteners. In this image, I am the center of attention; I took up the large part of the picture. As an administrator (and adult), I was a prominent figure in their lives. This life, however, lay outside of the actual school structure. The kindergartners did not show the school in their image, as did the fifth graders, but the kindergartners represented my care through my smiling personality, my outreached arms, and the sun—all of which conveyed security and happiness. They wrote “Thank you”—a simple statement, and yet, had these words not been in the image, the viewer would most likely not thought of this as a thank you image. While the image on the left showed my “job” as an administrator, the image on the right showed my personality as an
administrator. Like the fifth graders, these children drew upon colors and symbols to represent their perception of me. The rainbow, a symbol of wealth, luck, and in some communities, diversity. Largely prominent in this image is the large rainbow that extended across the image that is both a part of my body (part of the neck and shoulders), and also acted as a shield that represented protection and safety. Children with smiles played underneath the rainbow, a lucky space for them, where all children can play without challenge. The use of a soft pink in my outfit suggests a warmth and familiarity, and is in stark difference to the formal blue and yellow of the fifth-grade children. Through multiple modes or sign systems (visual and linguistic), these students clearly conveyed a message to the viewer about what I meant to them as one of their administrators. In terms of D/discourse, like the fifth graders, the kindergartners also represented their intention, an understanding of what their perceptions of an administrator should be—one that is caring, warm, bubbly and much like them. Unlike the fifth graders who saw school in a more formal way, the kindergartners understood school as a fun place, one in which all are welcomed equally.

Reading the images through CRT, in both images, children were aware of race. They captured my African American heritage, as well as their own. The kindergarten children clearly show their sense of diversity through the colors on their clothing, their faces, and the objects they associate with themselves. Both pictures accurately represent a school as a well-designed and managed space. However, neither of the pictures captures the space around the school that is very much their lives. One might imagine that the school that the fifth-grade children visually captured was in a middle-to-upper class neighborhood. However, as I discussed earlier, the neighborhood, is highly challenged,
and the children have very challenged lives. There are boarded up and dilapidated houses across the street from the school and up and down the road. Paying attention to children’s intentions and perceptions of what school is (both formal and fun) and what an administrator is (both professional and whimsical) is critical. Knowing that these imagined spaces are what children desire can position those who work in this school to support and work towards these desires.

I discussed these images through VDA and CRT to show that the written language (“Thank you,” “Making a difference in the lives of her students”) alone carries very little of the overall messages that children produced in their understanding of a concept (“administrator”), an administrator as a “person,” and content (the job of an administrator—to oversee a school and to play with the children). Additionally, this analysis demonstrates that images are amenable to analysis, and that not all images should be read solely through an aesthetic perspective—structure, objects, symbols, colors, size, etc., must also be taken into consideration in reading an image. Further, it is critical that schools honor the many ways in which children represent concepts and content, especially in a world driven by multiple ways to represent (visual, gestural, sound, written, spatial, and so on).

In sum, when children are assessed through written language, the assessment captures only a part of what they know, perceive and intend. If children were asked to write about what they understood about me as an administrator, “Making a difference in the lives of her students,” captures only but a small part of what can be understood through their picture. Or “Thank you” does not capture how the kindergarten children understand and want to experience school. Thus, attention to children’s images,
especially those created in content classes, must be viewed as significant in understanding more fully what they know and feel about content.

**Social Studies Content and Analysis of Children’s Images**

This research coincided with the state’s curriculum of study regarding Slavery in the Colonies, which teachers would teach as they would do if this study were not being conducted. The only change was teacher participants used VDA to analyze the drawings created by the students after studying the social studies content. I hoped that analyzing students’ visual responses through their drawings was a way teachers could gain meaning and a more thorough understanding about what students had or had not learned about a specific social studies text and topic (see Figure 4).

![Visual Analysis of Children’s Drawings](image)

**Figure 4.** Example of visual analysis of a student’s drawing.
An analysis of the drawing reveals to me that this student understood some elements regarding the social studies content, slaves coming to the Americas in the 1700s. There are two distinct narratives depicted by the horizontal orientation of the drawing. The picture depicts slaves on a slave ship and a slave master and slave in the field. It shows a sense of chronology from the slaves being brought over on the slave ship to work in the fields in America. The vectors (tensions or dynamic forces) indicate strength and directionality in the drawing as the drawing moves from left to right. The background of the drawing depicts darkness which to me indicates the struggle of the slaves on the ship and in the field (emotion), as well as yellow representing heat as the slave toil in the hot field (emotion). This analysis captured how teachers learned, over the duration of their participation in the study, ways to glean information from student drawings’ and their related discussions.

**Study Timetable**

The table shows the timeline of my study from the defense of the prospectus to the dissertation defense. It includes the activities that were conducted throughout the duration of the study. It includes ways of verifying the data through various member checks.
Table 2

Timeline of the Study

<table>
<thead>
<tr>
<th>Dates</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/16/2015</td>
<td>• Defense of Prospectus</td>
</tr>
<tr>
<td>2/10/2016</td>
<td>• School district approval</td>
</tr>
<tr>
<td>3/15/2016</td>
<td>• GSU IRB Approval</td>
</tr>
<tr>
<td>4/11/2016</td>
<td>• Met with teachers to discuss the study an invite to participate</td>
</tr>
<tr>
<td>4/18/2016</td>
<td>• Conducted teacher pre-interviews (N=4)</td>
</tr>
<tr>
<td>4/26-27/2016</td>
<td>• Teachers participated in 2 three-hour professional development sessions</td>
</tr>
<tr>
<td>5/2-13/2016</td>
<td>• Teachers implemented 2 week social studies unit (weekly debriefs occurred with teachers during this time)</td>
</tr>
<tr>
<td>5/25/2016</td>
<td>• Conducted teacher post-interviews (N=4)</td>
</tr>
<tr>
<td>4/18/16–1/25/17</td>
<td>• Ongoing data analysis</td>
</tr>
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<td></td>
<td>• Informal member checks</td>
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<tr>
<td>1/23/17</td>
<td>• Final member checks</td>
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<tr>
<td>4/4/2017</td>
<td>• Defend dissertation</td>
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Limitations of the Study

Possible limitations of the study included asking teachers to acquire a new skill set or assuming teachers may or may not come with the same skill set to analyze art or visual text images, possibly hindering how the student responses are analyzed. Some teachers may not have understood the concept.

Trustworthiness

It is vital that research entails the process, from beginning to end, being carried out in a way that is trustworthy. According to Merriam (2009), research is trustworthy to the extent that there has been some rigor in carrying out the study. This study was based on the desire for teachers to gain knowledge from the research and use the learned information to bring about more access to marginalized students in the way they are
assessed. Therefore, it was paramount that the research investigation and reporting of results were free of any unethical and careless work. In order for trustworthiness to be achieved in the study, there must have been validity and reliability, credibility, adequate engagement to the data collection, triangulation, member checking peer examination, and rich, thick description. This study followed all of the procedures outlined in the approved IRB protocol. Teacher and student participant interviews were recorded and reflected accurately and without bias. Students created their own drawings and freely discussed the aspects related to the guiding questions. Data were collected and stored appropriately to insure they remained in the participants’ intended state. Furthermore, participants were provided opportunities to clarify where needed.

Validity and Reliability. Even though, the terms validity and reliability are usually aligned with quantitative research, Merriam (2009) argues, validity and reliability, aligned to qualitative research, presents itself by the research being conducted through an investigation in an ethical way. Validity and reliability are achieved by the intentional attention to the study’s conceptualization and the way the data are collected, analyzed, interpreted and the way the findings are presented (Merriam, 2009). Through the qualitative study, the reader is provided with a detailed depiction that aims to provide a conclusion that follows a line of reasoning. Furthermore, the study describes people acting in events (Merriam, 2009). Understanding is the primary focus of the investigation and applying rigorous and well developed standards to reach the understanding is what substantiates the study’s trustworthiness (Merriam, 2009). This study was reliable because data including interviews and drawings were collected, analyzed and interpreted in a true and accurate manner. The drawings were analyzed using visual discourse
analysis (Albers, 2007) and following the grammar of visual design (Kress & van Leeuwen, 2006).

**Credibility.** According to Merriam (2009), the question to be asked when seeking credibility is, are the findings credible given the data presented? When answering the question, one must think about how reality impacts research findings. Credibility of the research relies on the meaning of reality. In qualitative research, reality is based upon people’s construction of it and how they experience a specific phenomenon, make meaning of their lives and come to understand certain processes. Furthermore, interpretations of reality are accessed directly through their observations and interviews (Merriam, 2009).

**Adequate engagement in data collection.** In order to get the participants’ understanding of the phenomenon, the researcher needs to spend the amount of time needed to feel that the data and emerging findings are saturated to the point where the researcher sees or hears the same things over and over again, and no new information surfaces as more data is collected (Merriam, 2009). For this study, six weeks was an adequate amount of time to be immersed in the participants’ professional development understandings and to allow their knowledge, or lack of, in analyzing their own and student drawings to present itself. The time allowed for an understanding about how visual discourse analysis could be used as a tool in determining what students knew about a social studies concept. Furthermore, the length of time was appropriate because teachers could immediately apply what was learned while the information was fresh and the professional development was relevant and applicable to what the students were learning.
**Triangulation.** In this study, triangulation was achieved by using multiple methods of data collections and using multiple sources of data. By using multiple methods of data collection, I looked to interviews, observations and the drawings to triangulate the data. Triangulation using multiple sources of data entails comparing and cross-checking data collected through follow-up interviews with the participants (Merriam, 2009). I listened to the teacher participant interviews, and also compared them to observations that I had made from the professional development and unit of study implementation to make comparisons with various data evidence. In order to triangulate the student data, I looked at their drawings, interviews and the discourse related to the art, as well as their essays and constructed responses to make determinations.

**Member checking.** To ensure credibility, I followed up with the teachers to get feedback on the emerging findings from the people who were interviewed (Merriam, 2009). According to Maxwell (2005), member checking is an important way to rule out the possibility of misinterpreting the meaning of what participants say and do and gain their perspective. The process involves taking the researcher’s preliminary analysis back to some of the participants and asking whether the interpretation is accurate (Merriam, 2009). Participants in the study were provided my interpretations on their responses to questions raised during the study as well as my observations made during the professional development opportunities and subsequent analysis of student drawings. By allowing the participants to make clarifications where needed, the findings will speak more accurately to their understandings.

**Peer examination.** According to Merriam (2009), peer examination provides an opportunity for a person of expertise related to the topic to review the raw data and assess
whether the findings are plausible based on the data. Dr. Albers, advisor of this study, who is one of the few experts on visual discourse analysis, was asked to review the data collected from this study to assess the nature of the findings.

**Rich, thick description.** Rich, thick description is thought of as a strategy to enable transferability by providing a description of the setting and participants of the study and a detailed description of the findings with enough evidence presented in the forms of quotes from participating interviews, field notes and documents (Merriam, 2009). This study, required very detailed descriptions about the participants’ professional development involvement as well as how they synthesized what they learned in to a viable tool to analyze student drawings. The detailed descriptions allowed for others to have an understanding about the processes involved in understanding art as a language.

In summary, this research was very important and timely because there is an urgent need to determine whether or not the students who are marginalized in school because of their social economic status, race and test scores are being pushed out of the educational arena because of standardized ways of assessing. Examining alternative measures of achievement and knowledge will hopefully provide answers to how these students can be successful in a diverse world.
CHAPTER 4

FINDINGS

In this dissertation study, I explored what fourth grade teachers learned about African American students’ knowledge regarding social studies content through their drawings. A second purpose of this study was to understand what African American students could communicate about social studies through their visual texts.

In this chapter, I present the findings from the following research questions:

1. When teachers were instructed in how to read images structurally and semantically, what did they learn about their low achieving (students who failed the social studies state standardized assessment) African American students’ understandings of a social studies text through their drawings?

2. How do teachers understand and talk about images through the lens of sign systems?

3. How did low-achieving African American students demonstrate social studies content knowledge in a written assessment compared to how they demonstrated content knowledge in a visual representation of a social studies text?

Three key findings emerged from data analysis of teacher interviews, professional development and focus group interviews. One key finding emerged from data analysis of children’s visual texts and their discussion of these texts. The three findings from teacher data were the following:

1. *Teachers varied in their beliefs about art as a communicative system.*

   Teachers described students as being “freed” and open to communicate
what they learned in social studies through the drawings they created. The drawings afforded students the opportunity to demonstrate a deeper level of learning of the content than through traditional ways of assessing their learning.

2. *Teachers intentionally studied their children’s visual texts differently after professional development*. The teacher participants learned that visual texts (drawings) can be read similarly as written texts by understanding there are structures and semantics that can be analyzed in the student drawings to help convey meaning. After PD, teacher participants identified underlining messages within children’s visual texts.

3. *Teachers intentionally integrated visual arts as part of assessment in social studies*. They saw that visual texts can support written texts and oral assessments by becoming a communicative event in sharing and understanding and/or interpreting information.

In terms of the children, one key finding emerged: Students visually represented key concepts in social studies in their visual texts and they found art to be a “fun” way to demonstrate social studies learning.

This chapter also includes a description of how teachers used what they learned to assess students’ understanding of the social studies text related to their unit of study. Early on in the study, two of the four teachers seemed confident about their own use of art in the classes and felt that being taught a formal way to read images would be beneficial. However, two other teachers demonstrated apprehension about having the ability to even understand that art could carry serious meaning.
**Teacher Participants**

**Finding 1: Teachers varied in their beliefs about art as a communicative system.**

Analysis across data sets indicated that teachers shifted in their beliefs about the significance of art in their lives, their understanding of art as an assessment tool, and the value of art as a system of communication in general. Conducting focus group interviews enabled me to get a sense of teachers’ initial beliefs about art, their experiences with art (personally and professionally), how they valued and experienced art in their daily teaching practices, and their understanding of the ability of students to convey quality content information through art.

The focus group discussion which occurred prior to the professional development sessions revealed the fourth-grade teachers mainly used traditional written formative and summative assessments to assess students’ content knowledge (i.e., written quizzes). There were other limited ways used to assess student content knowledge, such as projects, oral discussions, observations, multiple choice tests and class debates. To discuss this first finding, I frame this section through individual stories.

**Halley.** Halley is often quiet and reserved in her approach to teaching. She’s very organized and very structured in teaching of the content. Halley initially had very positive perspectives on art in both her personal and professional experiences. This perspective did not shift across time; however, what did shift was the understanding of how to interpret children’s visual texts to further her understanding of what they communicated about social studies content. In terms of the role of art in her life and in her teaching practices, Halley clearly stated that “art is the essence of everything to me”.

Art, for Halley, “is a way of telling a story” and “is more profound than words.” She said, “Even when I don’t have a concept of something, if I
see it or manipulate it, it becomes clear to me.” Comparatively, Halley explained how art was created as she landscaped her yard using symmetry and balance to tell an outside story. She explained, For my students, I see art as less of a technique and more of their ability to communicate their ideas. I’m limited on that area [analyzing] so I need more help with that, but it’s like me, you can tell me all day that I’m not a landscaper but I go outside and I create my art and it’s beautiful. I have to talk to the children because they’re the artists. They have to tell me exactly what they are creating and what they are doing. For me it will be more of their dialogue about what they’ve done rather than my analysis because I’m limited in that area.

For Halley, I interpret this as her being afforded the opportunity to express herself through the “freedom” of landscaping. It gave her a way to communicate and share with others not only the beauty but significance of plants and the outdoors in her life through the landscaping designs.

While Halley appreciated art as a communicative system, she also believed that words could not bring justice to the various forms of art expression. She understood art in relation to other systems of communication—a “dialogue” for example—because she was not yet confident in reading and analyzing children’s art works. She also recognized how art communicated holistically rather than through children’s knowledge of “technique.” While technique helped children create their meaning through art, this was not the significant part of the image—it was the meaning that children try to communicate visually that mattered to Halley.

Halley also saw that different media and modalities allowed children to communicate ideas/content differently. For Halley, it was “profoundly” important for children “to create a scenario.” Unfortunately, this takes time and in systems driven by data (Thompson & Allen, 2012), time often is not allowed for children to engage in content. However, teachers, like Halley, did what they could to support art as a modality for learning. For example, clay was important to her in teaching vocabulary. She believed
that using clay to illustrate what students knew about the vocabulary allowed students
who may not be able to demonstrate their knowledge on paper to use another medium to
show what they knew. Halley explained,

I’m going to try to incorporate clay. It’s amazing. For me, more profound
than the visual [drawing], because with clay, you’re molding in, so
there’re no lines. I mean there’re lines as far as the work is concerned but
the student is not thinking about that. They’re creating something.

For Halley, clay, as a 3-dimension medium, had the potential to talk around a
word rather than merely define it. Said another way, Halley’s class understood that art,
clay, allowed her class to “see” and “build” and “design” to understand vocabulary.
Halley described, “When we were studying the vocabulary word abolitionist, someone
did [made from clay] a microphone. The way they explained, expounded upon the word
and the things they did with that [clay] was profound.” Halley believed learning, in this
example through clay, comes from children’s building, designing, and creating an object
to show what they knew in “profound” ways and that allowed for more complex
understanding of the word/concept. Halley stated that when students use their own
creations to demonstrate learning, lasting connections are made to the content. In fact,
when they assembled and/or designed their own objects, rather than using what has
already been created for them, she believed that stronger ties to the content were
generated.

Another event that was equally as important to Halley occurred while she partici-
pated in a professional development activity in which teachers viewed a visual text
(advertisement). This ad contained an infant surrounded by various logos, (i.e., Sports
Illustrated, NBC, Sony and Prudential). Halley analyzed it and articulated, “They
[students] can also learn about their futures because it [advertisement] has life, and it has
things that they may not experience now but in the future they’ll get to experience some of those things.” While the advertisement was presented to suggest how ads position viewers as consumers, Halley saw ads as a positive impact and way for children to imagine themselves in those spaces and objects associated with them in the future.

**Gail.** Gail’s initial thoughts and beliefs about art resonated with early experiences. She shared an incident with the group, regarding a previous professional learning opportunity where she was assigned a task to visually represent something. It wasn’t a successful experience because her colleagues didn’t interpret the visual text the way she intended. She described this negative experience:

> I guess it [my art] hadn’t conveyed what I thought it had conveyed. I was thinking that I had done something that was a symbol of one thing but we couldn’t say anything . . . to explain, so when they started giving their interpretation of it, they saw it as being something totally different and actually it was the opposite. I ended up having to explain, but it was difficult for me because they interpreted it [my art] as being aggressive due to the heaviness of the lines and the dark colors I used.

While Gail appreciated art, she understood from this experience what she, as an artist, had intended may not be what viewers, whom she saw as critics, interpret from a particular work. While she thought she knew how to “convey” what she thought her art had conveyed,” her peers did not see this, I suggest that Gail clearly understood the potential of art to convey meaning; however, what she may not have understood is that her viewers may not have had the knowledge about art to understand her message. Or, rather, they understood her art based upon what they knew from their reading of art that had dark lines and colors. Gail also may not have had the knowledge to understand how dark lines and colors suggest particular meanings in some texts. Her viewers saw her work as dark, even though it was not intended to be. Thus, I suggest that both Gail and her viewers may not have understood how art as a language system communicates and
that they both relied on their knowledge of art as perceived in their worlds. That is, she believed art to be more interpretive and less definitive in what the art said to other viewers. However, after the professional development experience in visual discourse analysis which explained how lines, colors, perspective, object placement (and so on) worked in image, Gail became aware of how various features carry meaning in art and how these features impact the way other’s view and interpret the connotation of the artwork. She stated, “I probably would be better now because I have come to understand that everything matters, the curves of the lines and things that I took for granted.”

Even though, Gail experienced some anxiety with her initial experiences with using art to convey messages to viewers, she strongly professed her “love” for art “because of what it revealed.” She stated,

It’s one of the freest experiences a person can have. You really can’t box in art the same way you can do so many things in my life. It gave voice when I had no voice (making a reference to using drawing as a child as a way to keep true to herself). It’s therapeutic. It’s that uncompromised part of you that just kind of stands no matter what.

Similarly, Gail explained how she used art with her students “as a way to right a wrong day because drawing reaches into their souls and spirits.” Gail saw using art as a form of liberation for her students. In fact, she viewed students’ using art to communicate and express their thoughts as a way for them to demonstrate a deeper understanding about something.

Gail also expressed that students’ being afforded the opportunity to learn using various modalities was important. For her, allowing students to be innovative and creative by being able to do something with the content information or synthesize the content was key to understanding and helping students sustain their knowledge of the
content. Gail said, “They talked about what they did and why they did what they did,” referring to drawing about social studies content information. She stated,

The most powerful part of it [art] is students who might not have had voice, and who haven’t said much as it relates to social studies, now are sharing information. Social studies is very hard for some students. It’s that content area that some people aren’t comfortable with. I see kids who are receiving special services or kids who struggled in that area, come and say “this is that and this is this,” and be able to articulate it [content information] in an intelligent way. It was powerful for me to see that and to see how excited some of the kids were about that. It just makes me think if we can give them all that type of voice and that type of confidence and that type of opportunity, just think of where they could be in just a year’s time.

For Gail, art allowed students to have a voice about a subject area that was not always easy for them. With art, children were able to “articulate [content] in an intelligent way,” that, to her, would build confidence over time. Thus, art opened up communication where written text could not. Gail articulated the importance of having students communicate orally and explain their art work. She thought that the dialogue from the conversation added to their understanding of the information while affording them the freedom to express their thoughts in a risk-free manner. Gail stated, “The good thing about art is there is no right or wrong and so they [students] appreciate that they’ll not be judged. It’s a freeing experience. With the art and the conversations, we get on the same page.”

In the last focus group interview, Gail shared how she thought art could communicate social studies content. In fact, to her, students’ creating art pertaining to the social studies content information allowed for a deeper understanding of the concepts and a way to show it from their own perspective and many times from a different point of view from the teacher. Gail explained, “I think art can communicate content. In fact, it allows for deeper understanding from the students’ perspectives because a lot of times
they reflect things that we can pick up on or they come from a different point of view than we do.”

Across the study, Gail shifted her beliefs from art has meaning known to the artist to one in which art can be analyzed through structure and visual grammar (Albers, 2007). For her, though, art was a “freeing experience” that allowed for emotions to emerge. From my interpretation, because Gail saw art as affording this freedom, she thought children would benefit well. Gail saw providing her marginalized students the opportunity to learn and respond by using art as a way not only to meet their academic needs but their social emotional needs as well. She believed the social emotional connection to learning through the integration of art would support the full spectrum of students’ development, increase student learning by increasing students’ motivation to achieve, and increase their ability to be attentive and engaged in the learning process (CASEL School Guide, 2015).

Milton. Milton, a novice teacher, who was completing his third year at the school, initially shared his reluctance in using art forms in a serious way to communicate any substantial meaning of information. In his words, “I really struggle with understanding pieces of art that I have seen. I don’t understand it [intended meaning].” Yet he expressed offering students the opportunity to use art, especially drawing, as being important to student success. He stated,

I look at it from the standpoint that everybody may not be as great of a writer as some other people, so on a written exam I may not do so well or I may not be able to pronounce certain words, so I may be shy to speak on an oral exam. So giving students another chance to be able to express themselves is great. I think it gives kids almost as close to a level playing field as possible.
Even though Milton did not initially fully embrace the notion that art could be created to convey specific messages, he felt that creators of art could use it to express their thoughts and feelings. Further, he saw that students have differing abilities, and communicating through art was one. Art offered a “level playing field” for all students to succeed.

For Milton, there was an appreciation for viewing but not creating art: “I like viewing art for the most part because I’m intrigued by things I don’t understand.” The sense of being intrigued by what artists conveyed through pieces of art work was key to him. However, it was difficult for him to understand how there could be monetary value placed on most art. Initially, he viewed art as something that was meaningless and geared more to providing aesthetics rather than conveying a valid message. “I don’t see the beauty in it [art] but most people think art is beautiful and they will pay certain price tags for pieces because of its aesthetics.” Art pieces for this teacher carried more aesthetic messages than informational ones. Milton stated, “I’m mainly intrigued by art because it doesn’t make sense to me.”

Drawing from past experiences, Milton equated his own negative assessment of personal art creations to “having bad penmanship and therefore not being capable of producing art worthy products.” Moreover, he voiced, “I would have had to ask someone else to create something [art piece] that is an expression of me, just so it would be neater.” Interestingly, when Milton made this statement, another teacher, Gail, explained, “This feeling of inadequacy is key to being engaged in art, because people tend to gravitate to things they feel like they’re good at themselves.” I interpreted this statement as Milton’s not having a strong connection to art because he did not see himself as producing “worthy” products in an aesthetic sense. Furthermore, the connection between
drawing and penmanship is interesting. His negative association of penmanship— an act of drawing— seemed to carry over into his art and his belief that he could not draw.

Before the professional development, Milton shared one form of art as being useful in teaching math. He explained, “Something else we do [in class] doesn’t fall under drawings, paintings and buildings, is physiometry, a type of body art. You ask a child to show me a line segment and they hold out their hands and you got two points by both fists balled up—it falls under kinesthetic, but I think its art in a sense.” I interpreted this to mean that Milton felt that the movements made by the students demonstrated an artistic ability similar to dance whereby the body parts were used to create a visual image.

Milton’s beliefs changed over the course of the study. Initially, he believed art was not necessarily conclusive [ability to provide a definitive and complete message] but appreciated what it added to the learning process for students. Milton explained,

I like art from the fact that there’s no right or wrong way to draw something. We can draw two pictures about something and mine may look different from someone else’s but it’s mine and it’s not necessarily wrong. Providing opportunities for students to create art in social studies allows them to communicate by showing what’s in their minds.

By engaging in and discussing art, both through the professional development and focused group interviews, Milton seemed to understand that art has more potential to communicate information and not just be viewed from an aesthetic perspective. That he made a connection to physiometry and kinesthetic indicates that he does see art as a way to communicate ideas and understandings.

Shelia. Right from the start, Shelia revealed that art was not as a valid or as an important mode of communication as a written product was. She did not see art as a preferred mode of expression nor was she comfortable with her own ability to create art to communicate. She shared a childhood story:
When my aunt was in college and taking a psychology course, she tested me using my drawing portfolio, writings and interviews. My aunt’s analysis of the drawings contradicted my real feelings. My aunt said the drawings revealed I was a very unhappy child and on the contrary I was an extremely happy child who loved both of my parents.

This experience may have caused Shelia not to view art as a valid way to interpret the meaning of the artist. Her aunt’s perceived misreading and misanalysis of her childhood drawings may have developed in her a schema of possible mistrust in the validity of others interpreting art, especially drawings. While I cannot know Shelia’s aunt’s method of analysis, it seems quite clear that Shelia felt her drawings were misinterpreted and misjudged. Thus, Shelia may still have residual feelings that art does not carry the artist’s intention as depicted in drawings. Further, this unfortunate experience may have contributed to Shelia’s questioning of her own artistic ability.

While Shelia felt she did not possess the talent to create anything resembling art to convey meaning, she shared, “I love looking at art. I don’t like to be the one who is the illustrator. I don’t like to draw. I don’t like creating art. It’s just not one of my favorite modes of expression. I don’t know how to do it. I don’t like how my projects come out. I don’t like my products that I create so I stay away from it.”

Interestingly, and seemingly the opposite of what she said here, Shelia was the only teacher in this study who consistently integrated drawing into her weekly lessons. She often had students to sketch out the meanings of vocabulary words and draw pictures of social studies events in addition to writing about them. Shelia explained,

I look at it [drawings] when I’m linking it to social studies because that’s the subject that we use it the most in. I do think there is a right or wrong because for an example, if you have an event that was not part of the Revolutionary War or you leave out a particular person and maybe put in the wrong person then I have to fix that connection in their [student’s] head. It guides me in how they’re linking the events in their own heads.
Shelia, even with a negative impression of her own art, did provide this space for her students. Further, she had confidence, it seems, to read students’ artworks as they related to social studies content—whether the information was “right or wrong.” However, before the professional development, she looked at the drawings as something that supported the writing but not as equally important as the writing pieces.

Shelia seemed to have the largest shift in her beliefs about art to communicate content. While she did not seem to appreciate how others (in particular her aunt) interpreted her drawings, she interpreted her students, noting if the information was accurate. Similarly, she spoke to having students create and illustrate stories to connect to social studies events in order for them to engage and grasp content information. She argued, “I definitely believe students can convey meaning of content through their drawings or other forms of art such as a skit or rap because you can see the chain of events and I know they’re making connections.”

More importantly, Shelia reflected on how her students could further benefit:

I think my experiences, in 3rd, 4th and 5th grades, showed that I didn’t like art. However, I now want it to be a choice in my classroom whether they use it or not. I could write all day when I was in 3rd, 4th and 5th grades. I was told I was a good writer by all of my elementary school teachers so I want to offer that and other ways to communicate meaning. I don’t want to tie students to only writing because it might not be their thing and I don’t want them to get stuck. I made a note of that.

The most profound experience for Shelia was after the second professional development session, where she and the other teachers brought pieces of art they created for analysis and discussion for the class. She took her piece back to the students to analyze. Shelia shared, “Oh my God, this is what I know about me and this piece. The class came up with the message and they did it rather quickly. They noticed the tree’s growth in the picture and that was the one thing I was trying to get across. We started
with nothing but we are growing all the time, so the lesson taught me that if you look at something you can see the real message and come up with it on your own.” Once Shelia had professional development interpreting art, she now trusted that others could read her art more accurately. Her colleagues in this study as well as her students knew her and this piece.

While the reading of her art in the professional development and her class suggested that Shelia found art a strong way to communicate, she stated, “I still don’t like art from my perspective. I like what I learned from it [VDA professional development], that I can read the illustrations and I like what I get from my students when I figure out what they know from the art.” However, Shelia later admitted, “I absolutely think that art can articulate content. Sometimes I can’t read it as the students intended for it to reflect their knowledge but once they start talking about their art then I can see where they’re coming from.” Shelia seemed to understand that when students discuss their art, this adds a more thorough depiction of the meaning behind the piece. Shelia stated, “When my students begin talking about their pictures then I see all that they know. She continued, “The visual discourse gives us the complete picture.” From her perspective, then, Shelia seemed to understand that, having both the student’s visual text along with an oral explanation and discussion about the created art piece, gave the viewer a more thorough understanding about the art. The coupling of visual text and the oral component allowed for identification, clarification, and explanation of objects included in the visual text. More importantly, it allowed for the creator of the art to share his or her reasoning behind the creation.
**Cross-teacher Analysis.** The data provide several points about participants’ shifting beliefs. First, teachers’ previous experiences in art informed their decisions to work with art in the classroom. For Halley and Gail, art was a natural extension for learning. They found a genuine connection with various forms of art to the overall process of teaching and learning. Moreover, they demonstrated through their personal and professional engagement some aspect of art integration in a consistent manner. In contrast, both Milton and Shelia struggled to appreciate art generally and they questioned the value it brought to their personal or professional lives. Interestingly, both felt that they did not possess the ability to create “worthy” art. However, after professional development and introduction of VDA into their students’ drawings, both came to understand that art does have the potential to communicate content. Further, both thought students should have an opportunity to express their knowledge of content through art.

Second, Halley, Gail and Milton believed that there was no “right or wrong” with art. While all teachers went through professional development that demonstrated there is a structure and grammar in art, reading and producing art continued in their minds to be neutral. While all agreed that art conveys messages, they also believed messages will always be right because it represents how the information was perceived by the creator. Thus, the connection between reading art from a VDA—to analyze images that conveyed messages—may not have been as strong or impactful. From this logic, all messages conveyed about social studies content, then, would be right. Shelia acknowledged that having students orally discuss their drawings provided a viable way to assess their understanding of the content and an opportunity to determine if students were “right or wrong” about the social studies topics.
Finding 2: Teachers intentionally studied their children’s visual texts differently after Professional Development.

A month after receiving two 3-hour professional development sessions on visual discourse analysis, the four teacher participants took part in a final focus group interview. The interview coincided with the last week of school, so the teachers made several reflections on how the professional development would help them be better teachers during the upcoming school year as they used what they learned from the training. The teacher participants learned that visual texts (drawings) can be read with intention and systematically as written texts. As a part of the professional development, teachers created their own visual texts and applied this knowledge to reading their own images and visual texts created by students. They shared with each other insights and new understandings about analyzing visual texts.

They understood that there are structures and semantics that can be analyzed in the student drawings to help convey meaning. After this PD, teacher participants identified underlining messages within children’s visual texts.

Halley. In the last focus group interview, Halley talked about the significance of reading visual texts and she demonstrated a better understanding of art, in terms of structure and grammar, to communicate content. Initially, Halley always knew that children communicated through their visual art. However, after PD in visual discourse analysis, she began to consider how children could possibly show more about the content than she had initially thought. In her description of the PD experience, she stated,

Using drawings to communicate social studies content opened up communication for the children. Once they draw or create art, it gives them and teachers more insight into what they actually know and are able
to do. They used that [social studies drawing] to even deliberate more of
what they had inside.

For Halley, the use of art and her newfound knowledge of visual discourse analysis
enabled her to know that these pictures carried more than an aesthetic perspective on
social studies content. For her, students were “deliberate” in expressing their meaning
“inside.” Furthermore, Halley explained that she used the visual discourse analysis
process with her students which, from her perspective, increased their analytical ability
and thinking skills as well as taught them how to analyze visual texts in all content areas.
She also believed that studying children’s art work benefitted students in more than
taking a test. She stated,

I think it increases their analytical ability, their thinking skills and if you
can do that then you can transfer that and it never leaves you, unlike if you
teach a child how to take a test you’ll only teaching them to have that one
domain. If you teach them to be analytical they can carry that on and pass
it on throughout all of their academic career.

Halley seemed to appreciate more about how pictures worked, how children could
learn to analyze and synthesize through her knowledge of visual discourse analysis and
how children can say differently through art than what they can express orally and/or
through writing. Halley said that because of the learning gained from the professional
development workshops and participation in the study, she will incorporate more pictures
into her teaching and her students will be given the opportunity to use art to demonstrate
their learning of content, especially social studies. Halley stated,

I think that if you incorporate pictures for them to analyze, it also
enlightens them to be able to depict more proficiently what they have to
say. They will begin to grasp and include more. I think this is a fresh
opportunity for them but I think it is going to take more time for that to
develop.
**Gail.** Gail surfaced as a leader during the final focus group interview. It was very apparent that she was excited to share her thoughts about the impact, the visual discourse analysis professional development coupled with the classroom visual texts created by the students, made on her daily teaching and learning practices. She started the discussion and solicited input from the other teacher participants. She stated very early in the discussion, “I absolutely think art can communicate content.”

As a result of the professional development and the experiences working with students surrounding the visual discourse analysis of their drawings, Gail talked about how she believed students could convey meaning through their drawings but recognized the importance of needing to learn how to study and analyze artwork on a deeper level to understand how students truly made connections to the content information. In fact, Gail saw, “art as way to have students to move from concrete to abstract thinkers.” She stated, “For students, art enhances their learning and allows them to express themselves and to develop. For teachers, our ability to analyze their work will help to elevate us as educators.”

Gail felt strongly about using art and visual discourse analysis as a way to add value to her teaching and her students’ learning. The importance of learning how to analyze art the students created, as well as art created by others, was beneficial. Looking at the details in the students’ drawings, such as the angles, the shapes, colors, and lines, had become a part of how she assessed what they understood about the social studies content as well as their own perceptions regarding the topics. Gail declared,

The professional development has caused me to look at the colors, angles, shapes and lines in the students’ pictures. Prior to the training, I probably would have been looking at the picture as a whole. Being able to see those
[lines, colors, angles] now help me to have a better understanding about what the student means.

Gail understood the merit of “using art and visual discourse analysis as a way to enhance student learning and allow their development to unfold as they interact with creating the artwork while reflecting on the content.” She stated,

Even for me, being a teacher new to 4th grade, using art and visual discourse analysis helped me to connect to the social studies content. It felt more natural and I’ll remember more about what I learn when it’s time to teach the topic next year. This process helped me get the content to them [students] better. I was more connected to the content.

Milton. Reserved throughout the final focus interview, Milton talked more about how becoming knowledgeable around the grammar and syntactic structures of art was important for him to learn. He made reference to the professional development workshop related to reading artwork and grammar of visual design, (i.e., discussion on vectors in a canvas area). Milton began to view and analyze his students’ art in a different way. He revealed, “I now look at the positioning of images in their pictures because I know it means something, like something high at the top of the paper could resemble hope or the most important thing to that student.” Furthermore, Milton understood from the VDA professional development that the items students placed in a drawing represented something meaningful to them: “Art can communicate content. Just from the simple point of whatever a child is thinking and he/she puts in a picture, communicates the thoughts in their minds.”

Even though, Milton began the study thinking that art had no “right or wrong” to its interpretations, he came to understand, through his exposure to visual discourse analysis, that in fact visual texts can convey specific content messages. Furthermore, he stated, “I think it [art] can communicate content and it allows for deeper understanding
and communication from the students. I think it communicates the words in the students’ minds. It’s what they know. You can also then expand their learning.”

During the final focus group interview, I noticed Milton not necessarily stating for himself but nodding in agreement with his colleagues that art represented more than aesthetics and could be used in a meaningful way. He nodded in agreement that the drawings, along with allowing students to discuss them, enabled teachers to better teach and assess what their students learned about social studies content information.

**Sheilia.** Shelia viewed visual discourse analysis as a tool to access what her students knew about content information. She stated,

It’s through learning about visual discourse analysis and working through the project of the study that I see it is powerful. I am able to see some of my lower students knew as much as they did about the content that I was teaching. It may not have come across in their writing, but when they drew it, it brought forth everything they had learned.

Moreover, Shelia summed up how she used visual discourse analysis: “I can read through an illustration and figure out from the art what they [students] know. I think it’s very valuable.”

Even so, Shelia saw VDA as supporting a full understanding of what students know. She stated, “Visual discourse analysis gives us the complete picture ‘almost.’” She added “almost” because it depends on what students are focusing on in the picture. Like for instance, when they [students] were drawing the Middle Passage, I don’t think any of them had even a ship in their pre-pictures but in their post pictures they drew details. Some had slaves jumping off the side of the ship. They had chains on the slaves but I felt like they did not show everything that they learned. However, when I added letting them talk about the pictures, it was mind blowing, and then I thought they communicated everything they learned.”
Shelia’s students’ final drawings were more explicit and detailed than the other teacher participants’ students’. Her students drew more of the major points related to the Middle Passage. However, Shelia was not satisfied that the drawings conveyed all of what the students had learned:

I saw that when they were drawing the picture they might have focused on one aspect, so they put a lot of detail into the slave ship indicating that they learned about The Middle Passage, but they didn’t put in what they learned about the plantation or what they learned about the time period. So I still had to pull forth from them what they learned, but their discussions were richer afterwards.

Summary

According to the data, some key aspects were revealed about what teachers gained from the VDA professional development and the subsequent implementation of it with their students. I found that all four teachers were still in a learning stage about the VDA process. They were grappling with this new-found way of assessing students’ learning through their art (drawings). They found merit in the concept and process but perhaps needed more professional development to further their skills and confidence. In the same way, a study conducted by Jewitt (2003) found that teachers benefited from learning about a range of modes, including gesture, gaze, body-posture and movement that supported students in representing “character” in creating a computer game design though a CD-ROM. Through time, teachers understood that the aspects represented in an image was as an important as the written mode in students representing knowledge and learning for the computer-mediated task.

The teachers acknowledged that the students’ drawings carried meaning about the social studies topics. However, they continued to believe that class discussions around content were key to students’ communicating fuller understanding of the information.
Each of the teacher participants stated that allowing students to express themselves through the art of drawing was important because it opened up another avenue for students to demonstrate their knowledge and skills about specific content information. Overall, they expressed that learning about and using visual discourse analysis enhanced teaching and learning.

**Finding 3: Teachers integrated visual arts as part of assessment in social studies.**

In studying the focus group interviews, I found that after PD in visual discourse analysis, teachers integrated the visual arts as part of assessment in social studies. Teachers revealed during the initial focus group interview that students needed to make connections and find the relevancy in learning the standards aligned to content information.

Given the testing demands, some teachers felt that students were merely judged on how well they could take tests and not how well they understood the information. In the conversation below, teachers describe their feelings about the high-stakes standardized testing they and their students are faced with each year.

**Margul:** Given the conversation we are having about testing demands, talk about how you think standardized tests measure learning.

**Gail:** I think that they measure a student’s mastery or exposure to certain content. I think standardized tests, depending on whether its normed referenced or wherever they do some comparisons, have its place. I get the whole SAT, ACT type thing, but I do think that somewhere in the process we start using it to define kids and I think that’s where the mistake came. There is more than one data point and I think that’s when something that was created to be good, has taken on a life of its own. And now it’s like everything you do is based on and focused on that. I think so many opportunities are missed. So I think they are designed to measure learning but they don’t measure everything a child really knows. They don’t measure who a student is as a whole. I think there’s a bigger piece of the puzzle.
Halley: I think they limit a student’s ability to show who they are based upon their actual gifts. You can have a student to understand a concept but because of the way that its [standardized test question] worded, they can miss the question based upon not having a clear understanding of it [standardized test question]. But, if they were able to respond in their own way, you could see their depth of knowledge. And I don’t think it [standardized test question] gets to the depth of knowledge. You don’t get to really see their depth of knowledge. Children should be given performance things and then taught how to relate to what they have to do, instead of us [teachers] being crammed for time and saying, ok, here’s where we’re going. We spend a lot more time working on passing tests rather than actually giving the children the opportunity to be able to work on what they need to do to understand what’s coming next. The next year, you get some of the children and you say, “I know you got this,” because they were able to pass a test but these same children were not able to demonstrate their understanding of the concepts.

Shelia: I think it [standardized tests] measures their ability to take a test. That’s what it measures. It measures how well you can take a test because there are students we know in our classrooms they get the material but don’t pass the tests. But, if you are giving it to them using a different avenue, then you might see it. They’re just not good test takers. I am a very good test taker. You can give me material and I know how to break it down. I know how to make it fit into my mind so that I can remember it for the test. And, it might even last me after the test but some students have that ability and some students don’t. So I think that’s what we are able to see.

Milton: Standardized tests are usually measured based on the standards. The students are tested to see how well they interpret what they were taught. The data serves to compare and contrast how students measure up and see how far they are away from the top students and how close they are to the bottom portion of students. It doesn’t fully interpret what individual students fully understands about an overall concept.

In this exchange, teachers expressed concern over standardized tests and how they defined students. They also explained that these tests are a disservice to measuring the strengths and weaknesses of the “whole child” and that they are often used only as a single source of information to determine mastery of content standards. Further, while these teachers discussed the limits of standardized tests, they also alluded to the
importance of having other ways for students to show what they know about the subject matter.

One of these ways is through art and children’s demonstrating their knowledge through image. In this exchange, teachers discuss their stance towards using visual texts in the classroom to support children’s knowledge of social studies content.

**Shelia:** I think using visual texts to assess students understanding of social studies content is very powerful. It was only when I did this project that I was able to see some of my lower students knew as much as they did about the content that I was teaching. It may not have come across in multiple choice questions and answers and it may not have come across in their writing. But when they drew it, it brought forth everything that they learned. I think it’s very valuable.

**Milton:** I think it’s another outlet because students learn many different ways now, more ways than I did when I was in school. So now it gives them another chance to be able to express themselves or another chance to have something that they are actually good at. Some students are good at writing. Some may be good at taking tests, multiple choice or constructed response tests so it’s just another outlet to give another child an opportunity to possibly be great at something. It’s also an opportunity for students to express themselves and give a possible correct answer.

**Halley:** I’ve learned that if I let them depict first, I can really see what’s going on. They’re not struggling as much. Rather if they write first, those children who struggle to write, they often never get anything down. If they’ll able to draw first you get more in their writing. So I’ve learned that from this work.

**Gail:** I think the biggest thing for me was the fact that some of my students who receive special services were able to really provide just a great visual and orally articulate what that picture said, even though they couldn’t do the writing component. I think that was a good opportunity for me as an educator to see, because sometimes we focus on what they can’t do or what their short comings are and you don’t really get what they know.

**Milton:** I gave my students a sheet a paper and told them to tear out a map of the United States. When they did that, it wasn’t a right or wrong for a grade. I then asked them to draw the middle colonies and New England. I asked them to also go ahead and create a little legend and
put the different things that middle colonies have and that’s when the whole right and wrong aspect came into play for me.

The discussions that these teachers had were generative and explicative. All teacher participants found value in using visual texts to assess understanding of and from social studies content information. They understood that visual texts can support written texts and oral assessments by becoming a communicative event in sharing and understanding and/or interpreting information. For Shelia, use of visual texts enabled “lower [ability] children” to demonstrate what they know. Like Shelia, Gail saw integration of the arts as a space for special needs students to show what they learned about the content. Milton, who at the start of this study found little value in art that “intrigued” him because “it doesn’t make sense to me,” both shifted his perspective and he intentionally integrated art into his class by asking students to create a U.S. map with a legend and to fill in content information about the middle colonies. Halley, who had a positive perspective towards the arts at the start of the study, saw that, when students depicted social studies content, students “really [saw] what was going on” and were less likely to struggle with understanding the content.

Across teachers, each of them found value in using visual texts to assess understanding of and from social studies content information. They each shared ways that visual texts supported in the teaching, learning and assessing processes of social studies content by the communicative event in sharing and understanding and/or interpreting information.

In terms of assessment and social studies, teachers reflected on and connected their own experiences with those of their students. As I studied the data, it became evident that they too were assessed in more traditional ways by written examinations,
quizzes, oral discussions, recitation of information (rote), speeches and some limited opportunities to demonstrate through performance. Based upon my analysis of the interview data, I found that the teacher’s personal experiences created their belief system for how they assessed the students they taught (Dewey, 1938/1997). Even though they used traditional assessments, the teachers also embraced the notion that using multiple types of assessments, including drawings, was a valuable way to determine what students understood about specific content information.

Halley. Halley articulated the importance of identifying how children’s learning is assessed, especially noting arts-based and performance assessments, both of which “demonstrate knowledge of that skill.” She thought “everything is an assessment,” including observing children, discussions, traditional (e.g., multiple choice) and extended response. However, more significant to her were performance assessments: “My favorite are performance, . . . the performance tasks.” In fact, for her, performance assessments were key because “that’s where you actually have to demonstrate and if you don’t know how to do it then you have to go back and review it and then go back to it so, to me that’s the ultimate, the performance tasks.” It is not surprising, then, that for her, having children depict their understanding of content visually, was a performance task. From this study, she learned that if you ask children to draw “first, you get more in their writing.”

Halley viewed traditional standardized assessments as limiting students’ ability to fully assess their depth of knowledge about a concept. It restricted students from using their personal gifts to respond to ways of assessing whether or not they have mastered the content. For her, this led to teachers and students focusing on “passing the test” rather than authentically learning the information. She stated, “We spend a lot more time
working on passing tests rather than actually giving the children the opportunity to be able to work on what they need to do.” However, Halley expressed a concern with not having enough time as students engage in more creative and arts-based assessments. She explained,

I think sometimes it’s hard because a lot of times the time factor with all the other things that you have to do come into play. Children should be given performance things and then taught how to relate to what they have to do, instead of us [teachers] being crammed for time.

While Halley recognized that performance tasks like art are important, she felt limited in the time she could take. She found herself faced with a “hard” decision: prepare for the test or invite children to learn social studies content in a more “authentic” way.

While, Halley saw herself as from a “different era” in terms of assessment, she felt lucky that, in her early school experiences, she had been allowed to demonstrate her knowledge through “recitations, group discussions, create some kind of display, do some kind of skit.” This early experience carried into her role as a teacher at the school and she implemented demonstration and saw engagement as important to children’s learning. Children must demonstrate “something or create something to demonstrate [their] knowledge of that skill.” During the professional development workshop, Halley reified her belief that children’s learning must be grounded in actual experience. While the group discussed Dr. Albers’s presentation of a 5-year olds’ picture of himself as a baseball player, Halley described the [picture] as having “authenticity” and the very young child showing artistic ability through his drawing as a gift. Moreover, Halley explained why art integration is important in her daily teaching practice:

If it’s their creation, they [students] are more likely to tie-in something based upon what they’ve created rather than looking at something that’s already done, and then they’re having to use their abilities to assemble or to design and I think they are more likely to have created the connection
there. Likewise, I think that if you incorporate pictures for them to analyze, it also enlightens them to be able to depict more proficiently what they have to say, but that will take time. With time they will began to grasp and include more [in their drawings].

As a follow up to the professional development and research participation, Halley continued to use pictures and photos as an integral part of instruction. She stated,

I use pictures and photos to engage conversation, dialogue and overall understanding. I use students’ drawings mainly in social studies and math. I also place an emphasis on drawings to illustrate meanings of concepts/words. It is my plan in this phase of curriculum adjustment to add more drawing and written response activities to enhance mastery of skills/concepts.

Halley used art and the VDA process and continued to see it necessary to add these opportunities into her classroom teaching and learning practices.

Gail. Gail also reflected on her early school experiences as it related to assessment. As a child, Gail, was assessed mainly by written tests. As an adult, she had multiple ways of being assessed. She stated,

I’ve been or I felt like I’ve been assessed through speeches. I’ve been in interview groups and then we had to actually give a speech, as it related to something. Also, I’ve been assessed through roleplaying a couple of times. Once, I had to do some type of visual artwork that was supposed to be able to stand alone but I wasn’t quite successful at that.”

In spite of her self-proclaimed unsuccessful experience with being assessed through a visual text as a child, she found value is affording her students the opportunity.

Gail’s early school experiences seemed to influence her own integration of the arts as part of assessment and she had multiple ways of assessing of her students. She stated, “I assess students with quizzes and tests. We do a lot of group projects, labs and experienced-based learning. I give them a lot of scenarios as it relates to the content and they have to work together to get through it. We do a lot of counter arguments as a form of assessment. I change up some things, as it relates to a historical perspective and they
have to say what the outcome will be. My favorite thing, are tasks [performance-tasks], just because it covers all levels of the learning and it impacts all of the different modalities” Gail described time as being a challenge to assessing art-based performance tasks, such as drawing. According to Gail,

> Many times people, because they’re structured in such a way, to go from here to there, think art is so consuming. It takes time. So a lot of people think that if I can do this in five minutes why would I put fifty minutes into it?

Like Halley, then, Gail had to choose—prepare for the standardized tests or invite children to demonstrate what they know through art. Interestingly, while Gail found time for “labs,” “group projects,” and scenarios,” many of which take time, she did not see that art might offer children yet another mode through which to communicate: “If I can do this in 5 minutes, why would I put 50 minutes into it?”

Despite the challenge of how much time art can take, Gail saw drawing as a way to gain more knowledge about what the students learned about a topic/concept. Gail stated,

> If a student doesn’t understand information, it’s hard to know what they know and don’t know with a right/wrong multiple choice response. At least you can look at a picture and say, especially with oral explanation, that they do know this or not about the information. You can’t really do that with a multiple choice.

Moreover, she explained,

> I’m doing this [having students draw], but probably not to the level that I want to because it is to me a time consuming process. I definitely see the benefits of it. The goal is to do it a little more because I think it will reflect a lot about that student. In addition to showing their understanding of the specific content, I think you will get a better understanding of where to go next, as opposed to other things that tell you a child doesn’t understand something, but it won’t tell you exactly where they went wrong. If they’re doing a drawing you can figure more readily, if you take the time to study
it, where they went wrong or where you know they lost that connection. But this takes up lots of time.

Gail shared an example of how she used visual texts to assess her students’ knowledge of the taught social studies information:

During the pre-and-post picture, I definitely learned a lot just in seeing how they perceived or grasped a concept that they thought they knew. They knew about slavery. They thought they knew about Right to Vote, so their first picture reflected what they thought they knew and then just to see such a big difference between where they were and where they ended up. I just think having that visual for me to see the growth in that way as opposed to a regular pre-test, where for an example they got a 60, and then a post-test they got a 90. You don’t really know their journey through that. So I just think it reflects their journey and the process of learning.

**Milton.** At the start of the study, Milton relied heavily on more traditional ways of assessing students, such as quizzes and tests, discussions, and oral feedback. He stated, “I feel like if a student can articulate and explain something, [then] of course they can write it and put it on paper.” Interestingly, Milton shared that when he was a student, he was assessed solely through tests and speeches.

After listening and dialoguing with colleagues during the first focus group interview, Milton began to see assessment somewhat differently. He stated, “After this conversation, I definitely see the importance of allowing students in upper grades to draw in class. I just view it as students’ being able to basically show what they know in the form of drawing.”

During the final focus group interview, Milton discussed that it was important to give all of his students the opportunity to be successful. He saw that multiple ways to show knowledge was key, including using children’s drawings:

I also used them [drawings] in my classroom as a form of differentiation. It helped me see in different content areas what students who couldn’t show through their writings, what they learned from teaching of the information.
Milton described how he intentionally used visual texts to assess what his students understood about the content. He stated,

The students do a pre-picture or depict first. It’s like the first step of a K-W-L chart. So it’s what they know. So once you find out what they know, in a sense as a teacher, you can give [teach] them the things to basically enhance that picture in the end.

For Mr. Milton, using the visual text assessments and student discussion of the visual text helped students move to a higher level of learning. He explained,

This pushes the students’ reasoning for the most part and it answers the essential question of why did you do this? And when you figure out why, you go to the root of why. Then you can get a lot of information from students.

Again, like Gail, Milton struggled with using drawings, as art-in general-did not make sense to him. However, as an assessment, Milton used art to “differentiate” learning and determine what children knew about a topic, using these images to “go to the root of ‘why.’”

**Shelia.** Like the other teacher participants, Shelia, in her early school experiences, was primarily assessed by traditional written tests. However, she, too, provided her students with multiple ways of being assessed. She stated, “I use in my classroom, summative and formative assessments. They are testing the students’ knowledge of what I taught them, over the period or unit.” Even though Shelia felt that the performance-based assessments required more time than what they had, she felt the need to use them to meet the needs of her students. She stated,

It’s a time factor, but it’s needed. I have them sketch, sometimes for vocabulary purposes. They might sketch the meaning. They may get two words and draw a sketch about it and then that would tell me what they know about the vocabulary words in that unit. They also might in addition to written questions and writing, they might also draw events leading up to a certain event like the French and Indian War, so they might draw those events that led up to it.
Shelia saw the value of making a visual connection to the vocabulary words enhancing their knowledge.

Shelia also thought that having students trained to assess their own creations would move students to a higher level of understanding. She said,

If they’ll [students] given the training to look at their drawings like we were, they will look for certain things they will evaluate whether they’ve given it their all or what did they forget. I think we can go as far as to make a basic rubric to guide them. I think that self-assessment would be excellent for using visual discourse analysis.

**Cross-teacher Analysis.** Art as a system of communication has primarily been understood from an aesthetic perspective; teachers in this study had this initial belief. What shifted for them was learning about and having knowledge of aspects of art (e.g., line, perspective, shapes and grammar) that enabled them to understand the role of art to communicate content that may have otherwise been missed. When reading aesthetically, teachers found children’s art colorful, rich and inviting to view. However, when this group of teachers was invited to participate in professional development around the structure, grammar and reading visual texts for information, they found this to be significant and intentionally read and analyzed children’s visual texts with interest. Moreover, they learned that student-created art could be assessed for specific content information through visual discourse analysis.

For all teachers, time was a significant factor in how they were or were not able to integrate the arts as much as they would like. For all four, art as an assessment was a possible barrier because of this issue of time. Time limitations caused teachers to sometimes use various ways, such as singing songs, listening to speeches and viewing
videos, to address individual learning modalities but not to have students actually create and produce products using their preferential modes of learning (e.g., painting, drawing).

For all teachers, art as a means of assessing students’ comprehension and knowledge of social studies proved to be instructional for them. The teachers would use the drawings to determine if students had an understanding of the content. The drawings could reveal the extent to which whether or not students understood what specific people, key figures, events and concepts coincided with various events (e.g., the Middle Passage, the Revolutionary War). That children were able to draw what they understood about the Middle Passage—slaves jumping off the ship, the crowded spaces—demonstrates that teachers recognized that art does afford an opportunity for their children to explain knowledge of content such as this. Similarly, a study conducted by Kalantis, Cope & Harvey (2003) found that a number of assessment techniques are becoming more relevant in measuring the characteristics of people in what will be most effective in today’s society in terms of the economy and being valued citizens. Project assessments and portfolio assessments are two that align to this study. Project assessment, in the researchers study, entails in-depth tasks that involve collation of material and presentation. Also, it would necessitate some measurement of multiple intelligences, including communicative, analytical or creative. Portfolio assessment, relying on various forms of documentation, involves being measured by individual strengths of diverse individuals. Likewise, each of these forms of assessment afford individuals to be assessed in ways that align to individual choice and strengths for some students. However, all four teachers felt that the drawings along with spoken discourse were the best way to determine what students knew and were able to do with the information. All four teachers
integrated visual art to understand children’s social studies knowledge, each to a different degree. When children combined their talk, their pictures and peers’ drawings, teachers understood the significance of how art can demonstrate social studies knowledge in more complex ways.

**Student Participants**

The fourth-grade student participants were engaged in a social studies unit, Slavery in the Colonies. The four teacher participants taught lessons and engaged students in activities, including writing to a prompt and taking a multiple-choice assessment. Students were engaged in the unit of study for two weeks. Along with using the social studies textbook and other library books, teachers showed pictures and infused videos related to the topic. They encouraged dialogue among the students and included various forms of role-playing. Students were asked to write and draw about why Africans were brought to the Americas in the 1700s. Additionally, the students were asked to read and answer two multiple choice questions related to slavery in the colonies (see Figure 5). When I examined their answers on this multiple choice test, of the 16 students who took the multiple-choice test, only four marked answers to both questions correctly.
1. Africans were brought to the Americas to
   • give information about the life in Africa to Americans
   • take a vacation
   • make better wages
   • be used as enslaved workers

2. What was the biggest impact of slaves coming to the Americas in the 1700s?
   • improved the colonial economy to grow and stay strong
   • Africans and whites desegregated America
   • Africans became educated
   • Laws were changed for all Americans

*Figure 5. Multiple-choice test questions on Slavery in the Americas.*

(100%), while 10 students marked answers to one question correctly (50%) and 2 students did not mark the answers to either question correctly.

In addition, students were asked to write about why Africans were brought to the Americas in the 1700s. After I read and analyzed students’ essays, I found that most of the student participants struggled to put their thoughts into words effectively. They were unable to communicate their understanding of the social studies content learned in the unit about slavery in the colonies. With the exception of key words, such as “Africans,” “slaves,” and “America,” most of the students were not able to use the expected academic language to describe major concepts that the Georgia Performance Standards expected. Most students wrote unclear statements, missed key points and wrote one or two brief sentences to explain their thoughts. I rated the writings based on the content included in the essay, using a 0 to 1 scale with .5 representing some information being conveyed. I
found that 11 students received a 0 rating, 3 students earned .5 and 2 students made the full 1.0 rating. (Because identifying questions and writings on these tests is confidential, I am unable to provide student writings to evidence these claims.)

While I know as an administrator that being proficient in written and oral communication is important for students in this school, I also believe that students who struggled to convey their learning in written and oral communication could possibly convey what they learned visually. As part of this unit, teacher participants invited students to draw what they knew about why Africans were brought to the Americas in the 1700s. I used visual discourse analysis to analyze their visual images, and I talked to the students about what their drawings represented as it related to the topic. I asked each of the interviewed students to show me their drawing and talk through what they did, why they did it and what they learned. They were also asked to talk about the objects in their pictures and the significance of why they chose certain ones. Students further explained why they chose certain colors to use in their images as well as why objects were drawn certain sizes. The students were asked whether they liked drawing. More importantly, students were asked to explain what their pictures were conveying about the specific social studies content.

I found that student participants were able to offer some discourse about art and their knowledge of the specific social studies content. However, the discourse was not a student initiated robust articulation of the social studies content; instead, it came about through my probing questions (see sample questions in Chapter 3). Some students were hesitant to talk. One reason that the students may not have talked much was because they might have perceived an issue of power. As one of their administrators, they may have
been reluctant to talk. Children are often brought to “the office” for behavioral issues, and as one of the administrators, I am one who may have to discipline this behavior. A second reason may have been that students do not have the same experiences talking about images as they do talking about what they know in content classes. That is, children seemed to lack experience talking about art and their inexperience to talk about content in general. Similarly, in the school’s preparation to gain STEM certification, students struggled to articulate their thoughts when explaining STEM concepts. Thus, in general, I have found over the years in working with African American students, they have a more difficult time talking about their learning. However, one key finding emerged from data analysis of the children’s visual texts and their discussion of these images: Students identified key concepts in social studies in their visual texts and described art a “fun” way to demonstrate social studies learning.

As I gathered the student participants’ drawings, I found that all of the students conveyed, at the very least, something connected to slavery. Some drawings were more elaborate than others. Some drawings showed multiple dimensions of the concept while other drawings focused on one aspect. Some students used very bold colors while others chose more subdued colors. I chose to highlight several of the students’ images to discuss the information gained through the visual discourse analysis process.

**Jay.** A very petite and articulate boy, who struggled academically and behaviorally, Jay came from a challenged background and home life. He looked up to his grandmother who openly shared that up until recently she was a member of the Bloods gang. Even though she no longer claimed being a member of the Bloods, her grandson
regularly participated in unlawful behavior, such as stealing cell phones and selling them on corners.

Jay was eager to share his learning as shown in his drawing (see Figure 6). Jay was also happy to share this positive experience because he was usually in the principal’s office for fighting and/or stealing. Jay’s picture depicted his interpretation of slavery in the colonies. He began the conversation by explaining that the slave pictured in the far right corner was brought to America through the Triangular Trade process. The Triangular Trade refers to the trading in the eighteenth and nineteenth centuries that involved shipping goods from Britain to West Africa. These goods were used in exchange for slaves who were then shipped to the West Indies for sugar, rum and other goods that were then shipped to Britain. The routes formed a triangle (Wikipedia). Jay described the boat [slave ship] pictured in the left hand corner and pointed out a slave (stick figure) who was thrown overboard when he became sick on the ship.

![Figure 6. Jay’s picture of slaves on a slave ship.](image)
Jay further explained that standing next to the slave in the picture was the master’s helper, ensuring that the slave would continue working on pulling weeds in the field. In Jay’s mind, the black background of the pictured represented that “they [slaves] struggled. That’s why this part is dark and black. The yellow represented heat on the farm. Heat caused sweat. The yellow also means tears from when they were taken from their families.” Jay divided his picture to represent two narratives, one with the slaves on the boat and the other side conveying a message about being a slave in America and working in the hot fields.

As Jay, explained his picture, it became apparent that he had learned some key information about this unit of study. He understood why slaves were brought to the Americas in the 1700s, but he also revealed many misconceptions that came out of his explanation. After describing what was on his drawing, he began to discuss how he liked slavery and how Dr. Martin Luther King took part in ending slavery. He explained, “I love slavery and how Dr. Martin Luther King helped end slavery before he died.” He also, made a connection to art and sports, “I love drawing and the colors. Isn’t football art?” When Jay was asked if there was anything he would add to his picture, he stated, “I would add Martin Luther King here.”

I found the discussion with Jay, about his picture, to be confounding. As an African American boy, he did not seem to have a general sense about his ancestral roots, the mistreatment of slaves, how families were torn apart (as well as other actions against Africans who were brought over as slaves). His misconceptions about Dr. King and the civil rights movement occurring during the time of slavery did not surface in his essay or in his responses to the multiple choice questions. In fact, Jay got one of the questions
correct and the other one incorrect on his multiple-choice assessment. These misconceptions and incomplete understanding of the social studies content were revealed more through his explanation than through his image. Thus, Jay’s image offers interesting insight into his learning. That he liked slavery suggests that he did not relate to the information about slave transfer and exchange. Nor, did he have a sense of the role of Martin Luther King and civil rights. However, I surmised that Jay did not “like slavery,” but liked the story around slavery. Whether it was because he actually did identify with this event or the details around it, I did not ask him to explain.

Using VDA, I analyzed structural elements in Jay’s image. His picture is horizontal in orientation, which often indicates that the student-artist is telling a narrative (Albers, 2007), a story about what he has learned. The left side of the image, is often information that is “real or given.” In this case, the ship is a real object in this historical event. On the right is the slave couple working in the field. The image shows Jay’s sense of chronology of this event—the ship on the left and the fields on the right. The vectors, tensions or dynamic forces that indicate the strength and directionality (Albers, 2016) of Jay’s drawing, convey that the slaves were shipped across the ocean and brought to toil in the hot fields. Further, an analysis of the drawing suggests that one of the slaves is on a bent knee as though he/she is begging for mercy. It also shows that Jay drew the slave’s bodies with angular lines that usually indicates some sort of danger and/or gloom.

While Jay represented the Triangular Trade in part, a visual discourse analysis of his drawing and his discussion surrounding the image indicated that Jay knew more than what the two questions asked. The questions asked students to choose one detail, while the image indicated Jay’s sense of what it must have been like to be on the ocean on a
boat and how couples must have felt while they worked in the field. Because Jay seemingly identified with the story of slavery, his image represents the emotions around this event—black and dark for sadness and yellow for tears and heat. Jay’s explanation helped him understand the critical facts related to the Triangular Trade and the emotions that must have accompanied this event. Further, that he connected slavery to civil rights and Martin Luther King suggests that he has knowledge of social studies content not included in the multiple choice or essay portion of the test.

**Tani.** Withdrawn and distrusting of adults, due to being exposed to a life that most adults could not manage, best describes Tani. She relied heavily on her sister to navigate school. Moreover, having a sister at the school who closely resembled her was fun for Tani but confusing for some of the adults in the school building. One difference between the sisters was that Tani struggled to learn and retain information. As Tani described her drawing, she shared her struggles and her feelings about why she liked being afforded the opportunity to draw when learning about social studies: “I need help in social studies and some of my stuff. I need help in school and stuff and when I draw it’s easier for me to do it.”

Tani articulated a limited amount of information about why slaves were brought to the Americas in the 1700s, as depicted in her drawing (see Figure 7). However, she was able to show and discuss the interactions of slaves and their masters. She was also able to depict and point out places where slaves were sold and how they worked picking cotton in the fields in front of a plantation style house. She struggled to draw faces on the slaves and even placed a smile on one, stating, “He’s smiling because they [slaves] were used to getting sold to people. This one had been through it and he felt like he should
give up and just go with it [being a slave].” Tani understood some of the reasons slavery occurred in the Americas in the 1700s. She stated, “The slaves were brought to the Americas to clean houses, pick cotton, fix them [White people] food and do stuff because White people were too lazy to do it for themselves.”

An analysis of Tani’s image, like Jay’s, has a horizontal orientation in which she is telling the story of what she learned about slavery. Interestingly, while she described slaves as “getting used to getting sold to people,” the image makes it clear that “to people” were White people. She also has one slave with wrists that are bound by chains. This is unlike the other two men who hold hands. That there are no chains, indicates that Tani understood that White people were free while slaves were bound. Further, the field clearly shows only slaves working in it and the slave owner overseeing their work. This corresponds to her explanation that slaves “[did] stuff” because “White people were too lazy to do it for themselves.”
The colors chosen to depict the people and objects in the picture were interesting. She had the field overseer in a blue suit because “he’s rich.” She used variations of “whiteness” as seen by the three men in the lower left hand corner, representing a darker skinned slave and the two remaining men continuously being referred to as White men. It was understandable to me to see that Tani chose to color the plantation house purple. For me, the purple represented a melancholy depiction of the house where slaves were used and possibly abused.

I found another aspect of Tani’s picture fascinating. She chose very deliberate ways to depict how all but one slave in her picture used their arms. None of the slaves working the field or being sold showed their arms. When asked about the armless slaves in the field, Tani explained, “You don’t see their arms because they are inside the cotton.” Tani adds, “That man is also watching them, so none of them will get away and he’s telling them to do it right!” Even though Tani stated that the slaves did not have arms because they were hidden inside the cotton plants, I also thought the armless slaves could have possibly represented something more symbolic of their hopelessness, especially after Tani explained that the slaves in the cage, who were about to be sold, were so scrunched up their arms could not be seen. For me, the depiction of armless people as slaves could have symbolized something more profound and cynical, such as the slaves’ feeling and knowing that freedom was out of their “reach.”

**Joe.** Joe was a sensitive and caring child who showed compassion, understanding and sympathy in his drawing (see Figure 8). Joe found it necessary to use two separate pieces of construction paper to draw three scenes to depict slaves being brought to the Americas. All of the slaves’ faces showed sadness and pain. Joe had a real sense of
empathy for the slaves captured in each of the pictures. He stated, “The slaves are sad because the slave owners took them from their homes and put them on a boat. They are squished together on the bottom of the boat. They have frowns on their faces because they want to go back to their parents.” All of the slaves had turned-down mouths, while the slave owners had straight lines to represent their mouths.

Joe’s picture of the slave ship on the top half of the paper and the slaves in the field working on the bottom half depicted a sequence of events. His picture represented a linear narrative as though it was a step-by-step account of the events. Joe pointed out, during the discussion of his picture, “First, they take slaves from their homes and put them on a boat. Then, the slaves were taken off the slave ship and they were taken to the fields to work. After they get off the ship they go to the land to farm. Then the slaves are mad because they want to sit down and relax like their bosses.” The picture takes on a vertical orientation, yet tells an expository text—a text of information of the transfer of the slaves from the slave ship to the field working, in a linear step-by-step way. The picture shows tension between the slaves and the slaves’ owners as the vectors are

Figure 8. Joe captures the horrific experiences slaves encountered.
denoted by the strong lines used to divide the unfolding events in the picture (Albers, 2016). In J Joe’s second picture, a slave hunted by slave catchers and dogs, captured the intense pain and sorrow of the caught slave placed in a box and dressed in all black. The boxed is outlined by bold lines and encased the slave in red and bright blue. I interpreted this to mean that Joe was trying to capture the sense of the slave being frightened and placed in a dangerous circumstance.

The colors chosen by Joe were bold and bright with the exception of the slaves. The slaves on the slave ship and in the field were left completely colorless, perhaps to denote that they were seen as invisible and unimportant. The drawings told a narrative of the slaves’ horrible experiences, especially focused on the slave ship that was featured large and center and outlined in red. Both of his pictures depicted a sense of being grounded because Joe used green land to end each story narrative.

Joe added words on his drawings. He wrote “the whip” on the slave ship drawing and “slavery” on the image of the field slaves. I understood his written words to be an explanation of what he had drawn in the pictures. One, “the whip,” was to explain how a line represented a whip and the other to summarize “slavery” as an overall theme of the image. Therefore, Joe used various forms of literacy, written, oral and visual, to communicate an overall message about his images.

Joe described drawing in social studies as fun and explained, “It teaches me a lot about history and about slaves.” Because of the opportunity to draw, Joe was better able to access and engage with the social studies content information, especially in a fun way.

Ed. Immature, childish and attention seeking best describes Ed. Ed’s drawing (see Figure 9) appeared to follow along the same lines as a younger student. Noticeably, his
drawing resembled the drawings kindergarteners in the school created. He drew a
narrative, with a horizontal orientation, to depict what seemed to be acts in a play. Each
of the scenes had dialogue to add meaning to the image. They were also color blocked to
show separation of events. Scene I showed the beginning of

![Image of a drawing showing a slave and a caption about slavery starting in 10,000 years ago.]

*Figure 9.* Ed drew his images similar to scenes in a play.

Ed’s self-described “timeline.” He drew a single slave and wrote a caption that read,
“Slavery started in 10,000 years ago when people started farming.” The drawing of the
scene and the caption allowed his teacher and the viewer to clearly see that he was
lacking in understanding the concept of the slaves coming to the Americas in the 1700s.
This scene alone captured several misconceptions that needed to be cleared up in Ed’s
mind, from the time period (10,000 years ago) to the one reason (farming) slaves were
brought to the Americas. Ed’s interpretation of the slavery image showed and he further
explained, “Slaves came over to America 10,000 years ago to farm vegetables and fruits.”
Ed’s drawing of the farmer did not seem to be as developed as I would have expected from a 4th grade student. The farmer was drawn as a stick figure with very limited face/body features (i.e., no nose, no ears). Ed drew a yellow oval on top of the farmer’s head to represent a straw hat. The farmer’s arms and hands were drawn as straight lines and his legs were represented by straight lines with turned-out rectangular boxes as feet. According to Albers (2016), skinny arms may suggest helplessness. Even though Eric did not draw body features that resembled actual body parts, evident by the slaves and the abolitionist drawn with skinny arms (straight lines), he drew the man in the red hat, holding a gun, with a rectangular box for an arm. For me, this represented the man holding the gun as having power over his helpless victim (abolitionist).

Ed was very concerned about his timeline being “mixed up.” He explained several times, “I mixed up the Civil War and the slavery pictures. The slavery picture should have been in the middle.” The continuous clarification of the mixed-up scenes demonstrated to me that Ed definitely understood that the Civil War came as a result of slavery and as a way to eliminate it. He excitedly explained the Civil War scene image in two distinct parts, one, as a man drawn in a blue hat representing an abolitionist fighting against slavery and two, the representation of a good guy in the blue hat and a bad guy in the red hat. I interpreted this to me that he was also trying to show the relationship between the Union and the Confederacy. In fact, the Union soldiers during the Civil War wore blue uniforms. However, both men in Ed’s picture have on red suits. He only made the color distinction with the hats and shoes. Also, it was interesting to see that Ed’s depiction of the Civil War scene, showed bold, bright colors as he used colored markers
to create intense tension between the men, whereas comparatively, the picture of the farmer was represented by his use of light crayon drawn, natural colors.

Ed’s slavery scene was explained as, “A slave boy being whipped for not obeying his master. His leg got cut off because he was a run-away slave.” He added a written conversation to his image to provide further explanation. Ed wrote, “Whack. That’s what you get [slave master].” He also wrote, “It hurts. Stop [slave boy].” Through his written text, drawn image and oral explanation, Ed conveyed this scene to message that a runaway slave boy was caught and punished by his master.

Ed saw the opportunity to draw about what he was learning in social studies as a way to tell what happened in history. He stated, “I like drawing because I can describe what happened in the old days. I like telling about what was in the old days.” Even though Ed, made some connections to the social studies content, he also showed that he did not understand some key aspects, as evidenced by his statement, “I should have drawn a plane delivering the slaves or cars.”

Nehe. Writing, drawing and oral discussions for Nehe appeared to all help him effectively communicate his knowledge regarding the slaves’ coming to the Americas in the 1700s. He was one of two students who earned the highest points on the essay portion of the study, while correctly answering both multiple choice questions and drawing and discussing explicit information about slaves coming to the Americas in the 1700s. Nehe offered, “The slaves were brought to America to be enslaved.” Pointing to the four slaves working in the field, he explained, “They were being forced to work with no pay.”

Nehe’s drawing (see Figure 10), with a horizontal orientation, showed the journey taken by some slaves, depicting a reactionary response to the slave running away. The
picture also included action in the image (Albers, 2016). Nehe’s drawing showed what happened to one run-away slave as he was caught by the slave master and his dog. The slave’s leg was cut off in the carriage, as he was carried on the road, while the other slaves toiled in the hot fields. Nehe shared, “The slave master is torturing [using a hammer] the slave inside the carriage.” The picture of the run-away slave, in the big carriage, is drawn in the “given” area of the picture. Nehe described, “A chain is connecting a smaller carriage to a larger carriage. The horse and his harness is pulling the carriages.” The vectors have a left to right directionality as seen in the carriage moving east on the paper, causing the viewer’s eye to move sideways from one side of the paper to the other (Albers, 2016).

The faces and sizes of the slave masters and slaves told a story of those who had power and those who did not. Nehe explained, “The slave masters are drawn larger than the slaves because they have more power.” Furthermore, the gazes on the slave masters
and slaves’ faces are very different. The slave masters were looking directly at the viewer with smiles while three of the four slaves’ heads were bent down and had frowns on their faces. These two comparisons show which characters in Nehe’s picture had the power. Nehe also shared information about the physical and psychological state the slaves were in during this tumultuous period of time. He stated, “The slaves looked tired and sad by their expressions.”

Nehe drew and articulated several pieces of information to allow the viewers to determine the events occurred in the 1700s. He stated, “It shows this picture is about the 1700s because you see slaves working, the types of clothes, using horses and carriages and the way people are acting.” Nehe was able to convey messages about the social studies content using various communicative systems, including visual images, written text and oral discussion.

In fact, Nehe thought that drawing was fun. He stated, “Drawing is fun.” He made reference to drawing being easier than writing. His statement about drawing being “fun” was not followed up by an explicit message. I felt through his expressions, when he spoke about the “fun” that it meant a sort of “freeness from being judged right or wrong” in his mind. It wasn’t black or white to him. This was similar to what the teachers stated during their interviews. However, I believe he thought that drawing was more of an aesthetic process rather than one which required him to convey messages about the content. This made me think about the research conducted by Albers, Harste & Holbrook (2010), literacy researchers/practicing artists, whereby one aspect that emerged from the data was that meaning making starts with the aesthetic. Based upon my analysis of his
response, Nehe didn’t realize he was conveying information about the content through the “fun” communicative process of drawing.

**Don.** Don is somewhat hyper and struggles to focus on even minor tasks, yet he has a happy-go-lucky deposition. The visual image drawn by Don (see Figure 11) showed a struggle to understand the concept, or related events, of the slaves coming to the Americas in the 1700s. His visual image depicted a single encounter between a “colony soldier” gunning down four slaves. His explanation of the images told of a bizarre story,

*Figure 11.* Don’s slaves showed strong “defiance”.

more focused on the slaves’ level of defiance from the bullets hitting them, than of the concept of slaves being brought to the Americas in the 1700s. Don explained, “This man. A colony soldier killing the slaves. He had a gun because he was trying to kill them for running away.” He pointed out, “This slave is smirking because he hadn’t fallen down yet. The next slave is sad because he is falling and the other two slaves are smirking because they haven’t fallen down.”
Don filled in all of the background space on the picture using dark blue, yet he pointed out that the bottom portion of the picture was colored green for the grass and the top portion brown for the sky. His responses were very puzzling to me even though I realized that the dark blue color suggested some dreariness and doom (Albers, 2016). He explained that the yellow box with an X represented an African flag while pointing out that he had also included two American flags. I interpreted the inclusion of the flags to represent his knowledge that the slaves were brought from Africa to America. It also made me think that in his mind, America was “the ideal” because it was drawn in the top center portion of the picture.

Having “fun” drawing was an important aspect of why Don wanted to continue using drawing in his social studies class. Through observation and discussion with Don, I understood that a real connection to learning standards or academic targets never aligned. In his mind, drawing was for the purpose of having fun in social studies.

Jan. Very mature in nature, Jan seemed very comfortable sharing her thoughts with me. Jan’s picture (see Figure 12) effectively captured some of the main events depicting the reason Africans were brought to the Americas in the 1700s. Jan’s drawing provided many key elements, such as a symbol to represent the Triangular Trade routes taken by the slave catchers. Jan explained, “This is the Triangular Trade triangle. This symbol represents the route taken by the tortured slaves when they were traded for stuff. Africans were brought over because they needed to work on plantations and to be enslaved.”

Her image of the slave ship, placed center of the canvas, depicted in detail, how the many slaves were packed side-by-side, hooked together with chains, in the bottom of
the ship. The slaves were well guarded by two overseers looking down on them. The ship has a mass on top and steps leading from the ship deck to the bowels where the slaves were placed. Jan included a written message next to the ship that gave clarity to the viewer. She wrote, “Ship that had slaves to go to the field.”

Jan used very vibrant colors in her drawing. The outline of the ship and the box around the Triangular Trade symbol were bolded and almost gave a 3-dimensional type of projection. I interpreted this to mean Jan wanted her viewers to focus more on those two objects in the image. I also believed this choice to bold the two objects showed foreboding and danger (Albers, 2016). She also effectively captured the natural elements placed in the pictures by using realistic colors—light blue and white clouds, dark blue ocean water, green fields and a two-toned, yellow and orange sun to depict the sun setting. She also used brown to outline her stick-figure drawings of the slaves.

Jan summed up her drawing: “I drew all those pictures because it represents how they [slaves] were used to trade and to work. Slaves really worked hard in the hot sun. They worked so hard.” Jan pointed out the slaves were singing spirituals in the hot fields as they worked. She also had written text placed over the slaves in the fields to explain
their actions. The drawing of the field slaves showed their mouths opened as though they were singing.

**Student Participant Summary Analysis**

The student participants were able to convey some level of social studies content information related to slaves’ being brought to the Americas in the 1700s. Some students’ images were very detailed and these students were also the most articulate about their content knowledge. Others were less articulate. The stronger the drawing, the stronger the discussion and talk around them. The majority of the students made connections to slavery and how the slaves were mistreated and faced severe challenges in one way or another as they were taken from Africa, brought over on a ship and ended up working for White masters as their slaves. Just as important was the revelation that misconceptions were brought out in the discussions as the students explained their drawings.

The drawings, along with the verbal explanations about the images, often led to the students’ sharing information about the subject matter that was not shared in either the multiple-choice assessment or the essay. It gave students another way to share related information to allow teachers to make instructional decisions about their understanding of the standards. This afforded students who may not have been thought to possess understanding of the social studies content to let it be known that they too had knowledge and skills related to the topic.

It was interesting to see that many of the students related to slaves running away and having limbs cut out. It led me to ponder whether this was due to something that was shared with the students by the teachers or whether the students were fascinated or affected by the killing of slaves.
All but one of the drawings depicted horizontal orientations that often represent narratives. Furthermore, the drawings demonstrated very similar structures found in reading comprehension of written texts, such as sequencing, story elements (characters, setting, plot, etc.), description and chronological order.

Lastly, I found that many of the students saw art as being more fun and easier than being required to create written text. Art for the some of the students was perceived as not being as threatening and opening them up to be judged right or wrong. For me, art serves as both an aesthetic purpose and more importantly, a way to convey meaningful messages. Thus, art is more meaningful than “fun” to me.
CHAPTER 5
DISCUSSION

As a result of this study, several areas of importance became evident and which have implications for teaching, research and assessment. Pictures convey important meanings, teachers’ previous experiences with and interests in art influence their use of art as an assessment tool, and having an assessment tool like VDA enabled them to engage in different teaching practices with their students and interactions with their colleagues. This chapter will discuss each of these points and offer implications for teaching and research.

Teacher’s and Children’s Understandings of Art to Communicate

Teacher’s Previous Experiences in Art Matter. Teachers’ previous ways of knowing about art matter and influenced how they approached using art as assessment. The teachers entered the study with various levels of personal engagement and interest in art. Previous experiences in art matter as to the extent that teachers worked with art in the classroom. Less than positive experiences, especially in their younger years, may have 1) played a part in why teachers had an initial distrust that art could be analyzed to identify meaning and discourses; and 2) prevented them from thinking that viewers accurately read their meaning in drawings. Furthermore, the teachers embarked on the study having a sense that art had no “right or wrong” way of being interpreted, that art was more about aesthetics, and that the art maker creates with a sense of “freedom” that is not necessarily intentional but more therapeutic in nature. For the most part, initially, the teachers were unfamiliar with the concept of art is a language which can be analyzed, Albers, Harste, and Vasquez (2011) investigated the nature of teachers and administrators’ responses to
children’s literature through written and visual representations. Participants in this study were taught critical literacy and VDA methods to interpret children’s literature. These researchers found that written comments were more critical in nature (e.g., why was Sister Anne removed from the school), while the visual images conveyed dominant Discourses of diversity (e.g., everyone should get along). Implications for this study included the need for teachers to study critical methods of analysis and have more experience interrogating texts in both visual- and print-based ways. In agreement with Albers et al.’s study, this current study contributes to the literature in that it supports professional development in VDA to more deeply understand that teachers could assess children’s pictures for content knowledge, much like they do with children’s written and oral texts. As this study found, when teachers used visual discourse analysis, they were better able to understand messages conveyed by the student participants.

Teacher’s own early experiences with art mattered as to the extent that they engaged with art as an assessment tool. Moreover, to once again draw upon the work of Bryce (2012), Olshansky (2008) and Rief (1999), teachers integrate the arts more when they believe the arts are important to learning. The teachers initially spoke of their early experiences with art which offered them a familiar way to integrate it into their classes. They each drew upon either positive, negative or complex experiences related to their own creations and sharing of art. In some instances these experiences caused apprehension in teachers feeling that art could not be legitimately read and interpreted with a sense of certainty.

However, throughout the study, teachers became open to other understandings of how art works to support student learning. The professional development helped teachers
to understand that visual text is a language system that carries grammar and structure similar to written and oral text. The professional development also brought about an awareness and understanding that the ability to read visual texts would support students in becoming critical thinkers as they encounter everyday visual messages presented to them.

**Impact of Visual Discourse Analysis on Instruction and Assessment.** When teachers learned about visual discourse analysis and how to read visual texts/artwork and develop an understanding of the grammar of visual design elements of art on canvas, they shifted their perspectives on assessments being more than written constructed response/essay and oral forms. Hence, teachers came to understand that when students create visual texts to convey content information, these texts can reveal what students may know or may not know. In the case of some of the student participants in this study, many misconceptions were articulated that did not show up in either the written (constructed response and essay) or oral assessments.

Additionally, after teachers engaged in the VDA professional development and offered up their own art work for group analysis, they became very motivated in understanding that art is a language that conveys explicit insights and messages. Teachers became interested in how the language of art matters. They began to share the newly found information with their colleagues who were not included in the study. Teachers across the school building began to share with me how they were allowing students to add drawings along with written responses more and use drawings, and other forms of art, as part of their teaching and students’ learning. I believe the most effective way to get teachers to change their teaching practices is for their colleagues to share the benefits of
the strategies they are implementing. Moreover, teachers started including in their lesson plans to have students draw their ideas, along with their written work, in class activities.

Another interesting outcome arose from this study, teachers across the building wanted to know more about how to read their students’ artwork. Consequently, for this school and others, training in VDA should be a part of the professional development offered to all teachers and viewed as an important way to communicate with students as written and oral language forms of communication. Identifying and working with teachers to understand strategies to comprehend and create multimodal texts as equally as those strategies used for written texts will help to expand student learning (Serafini, 2011). Even though teachers are amenable to learning more about using visual texts and VDA in their repertoire of teaching and assessment practices, teachers may need to shift their thinking in traditional ways of measuring what students know. Realistically, there can be possible tension between reading written and visual text. Faced with grading and other forms of measuring what students may or may not know, reading and analyzing written text may look different from reading and analyzing visual text.

Data analysis revealed a correlation between teacher interest and motivation, regarding the use of student drawings and visual discourse analysis, and the quality of students’ visual text related to the topic. This was evident in the pictures drawn by Nehe and Jan. Their drawings and discussions were more detailed and thorough in the depiction of the targeted social studies concepts. These two students along with some others with more detailed drawings came from Shelia’s class. Throughout the 2-week immersion in the social studies content, Slavery in the Colonies, Shelia became interested in wanting to know more about visual discourse analysis. She became vested in the
process and subsequently set higher expectations for her students’ drawings and discussions of the social studies content. For me, this meant teachers’ interests in alternative approaches to assessment matter especially when children are prompted to represent knowledge through art and ability to discuss content. With teachers who believe that art communicates, children’s images were more sophisticated and detailed along with their talk about these pictures. It is important for teacher’s to understand that children communicate less or more about what they know based upon their commitment.

According to Bryce (2012), Olshansky (2008) and Rief (1999), teachers integrate the arts more when they believe the arts are important to learning. These scholars have noted that integration is critical to children’s learning. When the arts were integrated in one school, Bryce (2012) found that the whole school transformed into a topic that they studied. The school conducting the study created a reproduction of New York City in the early 1600s. In my study, teachers did not go as far as the work of these scholars; however, they did shift and integrate the arts into content instruction and learning. Furthermore, when teachers believe that art communicates, they integrate visual arts into assessment of children’s knowledge, analyze and talk with students about their pictures in light of the content and post this information publically in and outside their classrooms.

Teachers learning about visual discourse analysis came to understand that the process is another way of knowing. The teachers participating in the study shared “a-ha” moments in regard to reading visual texts and comprehending the messages the students were conveying. Teachers trained on VDA learned how to analyze and interpret meaning based on the student’s use of the canvas as it related to elements such as vertical/horizontal orientation, “ideal” versus “real,” and “given” versus “new” information.
contained in their image. Furthermore, the teachers’ analyses of the actions and reactions, center of attention, vectors, types of lines, color usage, gazes of the characters and other elements in children’s drawings helped teachers to understand children’s artwork conveyed meanings. Teachers realized that the visual texts students created could be interpreted using knowledge of the grammar of visual design displayed in the artwork. In other words, knowledge about art structures and principles mattered as teachers learned to analyze visual images.

Teachers came to know the relationship between social and visual representations in children’s drawings (Albers, 2007). That is, social identities and activities were brought forth in the drawings (Albers, 2007). Students’ beliefs, culture and experiences surfaced in their drawings related to Africans coming to the Americas in the 1700s. This current study continues the discussion on the research conducted by Albers, Frederick and Cowan (2009). These scholars found that student drawings revealed the way culture played into students’ viewpoints and how their own identities come into play about what they considered to be gender appropriate. Girls had particular details represented in their drawings about what they thought were boys’ interests (e.g., dinosaurs, reptiles, outdoor activities) and the converse was also seen in boys’ representations of girls’ interests (e.g., flowers, art, domestic/house activities). These researchers found that children brought their own identities into their visual texts about what they considered to be gender appropriate.

**Teachers’ Understanding of Art as a Language to Communicate Content.**

Teachers discovered how their children represented knowledge about social studies through art. As teachers analyzed their students’ drawings to determine what they knew
about the social studies topic, Slavery in the Colonies, they began to see that students were able to communicate not only what they knew but also their misconceptions about the topic. For example, Tani drew smiles on the faces of slaves and discussed the fact that they were smiling because they were used to getting sold. The teachers who understood how to read artwork and the grammar of visual design were able to determine to some extent—the accuracy of children’s knowledge of this content knowledge. They were then able to adjust their instructional decisions to ensure students’ learning.

Art, as a language system, made sense, and teachers understood that visual information offers alternative ways to consider knowledge. Once teachers recognized that art carried explicit meaning and should be considered a language similar to written and oral language, they began to see the possibilities of giving students an alternative way to show what they know. Subsequently, the teachers learned to view art as a legitimate form of communication and acknowledged that it could present information to the viewer that traditionally written and oral forms of communication may not present. This suggest if teachers learn about the structures and grammar, as well as the semantics within visual texts, they may be more able to talk with their students in more complex ways. In turn students may learn how art as a language system works (e.g., grammar, semantics). And even more importantly, how to talk in more complex ways about their own art, and the content they represented.

While teachers saw the value in understanding art as a language, in this study, teachers also believed that discussions around the information and drawings provided additional meaning. This finding extends the research of Hopperstad (2010) in which, he
too made the claim that teachers should support and promote child’s visual literacy by reading and talking about the meaning that drawings convey.

**Children Depict Content Knowledge through Art.** Children’s pictures reveal information about what they know in a subject area in ways that words cannot always convey. It became apparent to me, during the visual discourse analysis of the students’ drawings and their accompanying discussions, that the students could depict and identify key concepts of social studies content in their visual texts. This finding offers insights into how teachers can use students’ drawings to assess student’s learning, how teachers and students can learn to analyze visual texts and how and why students should be afforded opportunities to create visual texts in their daily learning opportunities.

**Time and Art**

Teachers found that to do art takes time (Freyberger, 1985). While time is an important factor, this study indicates that this may be time well spent. If teachers learn that children connect with various aspects of content (e.g., slaves and plantation work), teachers will not have to “guess” if students understood this aspect of history. However, through images—that take time—teachers in this study were able to identify which content and which children may have misunderstood some of the content. That Ed added a plane in his drawing is an immediate cue that this child needs further support to understand content. Teachers can then craft their instruction to fit this misunderstanding, build in different comprehension strategies to support children’s learning, and/or work with an individual child, like Ed to help him better understand content. This study offers some evidence to suggest that art integration may be an important, intentional, and consistent part of content specific assessments. Further, teachers may be offered
professional development in how to match up several standards to one art engagement, thus saving time by a one-to-one match of activity to each standard. Also, teachers can consider adding an art component to content specific assessments and training their students to assess themselves and peers to cut down on teacher time involvement.

**Implications for Teaching**

There are a number of implications for teaching that arose from this study. First, students’ other ways of knowing must be supported. The students that this study served come from very difficult home and community environments. Their circumstances place many of them in such turmoil that they are often referred to by the school district social workers as trauma victims. During my interviews with the student participants, they talked about how drawing was “fun” and nonjudgmental. That is, at the same time that they enjoyed drawing, they appreciated that their drawings reflected their individualized interactions and reactions to the social studies content. In order for students, especially those with challenged home and financial situations, to be reached academically and social emotionally, it’s vital to provide alternative ways for them to share information that they see as nonthreatening and open to their way of expression. Further, teachers who are trained in visual discourse analysis can use students’ visual images to assess students’ content knowledge and skills while also addressing any misconceptions that may have developed about the information.

Second, art must be regularly integrated into classroom practice and curriculum both for fun and for them to express meaning interpretation of content through a mode that they find enjoyable. In Fisher, Albers, and Frederick’s (2014) study, their study of one five-year old child’s (John) visual representations of his behavior positioned art as a
punitive engagement. That is, this child, who enjoyed art and drawing, was forced to use this mode of expression to represent his bad behavior. John then associated art with something bad, and at the end of the year, clearly showed his lack of engagement through a weak pencil drawing of his small body sitting in a chair. This study provides some evidence that students felt drawing about the social studies content was fun. They described that they enjoyed using the art supplies to draw their learning in social studies. They further explained that art was enjoyable because they did not have to write. They appreciated having crayons, markers and especially colored pencils to draw their pictures. They also stated that using these tools more flexibly allowed them to have choice in how they drew, rather than using the everyday common use of pencils. Art provided this group of children flexibility in what and how they expressed their content knowledge. This study offers insights into the potential of art to communicate knowledge in more enjoyable ways and with more choice. Thus, this study suggests that teachers bring the visual arts intentionally into their instruction. Further, teachers could support children’s critical analysis of their own image-making; working with students to learn how to critically read visual texts with an understanding that the art producer is relaying their own perception of the given subject matter. It’s important for students to understand bias, perception, propaganda, etc.

Third, students who were often not successful at writing responses to text felt as though drawing would give them another chance to interact with the information. Likewise, teacher Milton talked about during his interview that he felt allowing drawing, or other forms of art to communicate, was a way to level the playing field for students who struggled at traditional forms of assessment. Opportunities to draw promoted
engagement by those students who often were not motivated because of their frustration with being asked to solely respond through written text. Frequent expectations to solely respond by written text many times became a burden to these students. With Fisher et al.’s study in mind, for this group of students, writing did not offer this same “choice.” From their discussion, it seems as if they had already established that writing is somehow punitive—punitive in that this form of expression positioned them as less than knowledgeable of content. Thus, for students who do not enjoy writing, they may see it as a punitive literacy practice and resist working to improve their ability to express through writing. Thus, opening up spaces for students to communicate through art, and then offering them an opportunity to talk about their drawings, may position them to then write about their drawings. Olshanky (2008) has had great success working with art to create strong writers.

Fourth, other ways of knowing, like art, must be viewed as significant in curriculum. It is imperative for educators to become aware of the opportunities for students to learn through visual texts and to create through visual forms of art. Students can use art to strengthen what they share in written and oral forms of communication. Art, coupled with written and/or oral communication provides a more complete picture about the intended message.

The school in which this research study was conducted is currently implementing a robust integration of science, technology, engineering, art and mathematics (STEAM). The arts (art and music) provide a vital role in students learning in the STEM areas. The infusion of art into the integrated STEM areas has brought the curriculum to life. It has supported the curriculum visually and impacted student engagement and motivation.
Fifth, administrators should be aware of the importance of all subject areas, including art, and support professional development in areas often not presented. When teachers have a repertoire of knowledge and skills to use instructionally, in the various subject areas, it will serve as additional instructional tools to reach more students. As the school in this study became more intentional in integrating the arts in STEM to create STEAM, as one of the administrators of the school in this study, I have noticed that students in the school are more engaged in learning, and also perform higher on written and oral assessments. Recently, the State Department of Education granted the school a very rigorous STEM certified status, a status in which only 23 schools in the entire state have been able to meet the criteria. As part of their final analysis, the representatives spoke to how the students were able to demonstrate their learning and interaction in the STEM curriculum through written forms of stating claims, evidence and reasoning, articulating their thoughts and through their impressive STEM integrated visual projects displayed inside and outside of the classrooms. Indeed, as an administrator I know that the students were able to strengthen their knowledge and skills in the STEM areas by integrating more visual literacy and creating visual products.

Implications for Research

Several implications for research also arose from this study. First, researchers who work with visual information might consider how art works as a language system. Visual texts and other forms of visual media, i.e. photographs, artifacts, documents etc., should be closely read using the grammar of visual design and the discourse that underpin children’s visual texts. Analysis of the conventions, patterns, structures and elements conveyed in children’s visual texts may offer insights into their knowledge of content as
well as their beliefs and interest in content. There is some evidence in this study to suggest that close readings of visual information—as is often done in written and oral information—may indicate children’s understanding of content material.

Second, more attention to reading and responding to children’s visual texts to understand the messages they convey could be done in relation to other subject areas like science, history, and math. Reading and responding to visual texts can be used to support teaching and learning and ensure that all students are afforded opportunities to demonstrate their knowledge in alternate ways across the curriculum. Content areas lend themselves to children applying visual representations of content information, i.e. solving mathematical problems using student drawings. More research across other content areas could be conducted to study how visual imagery demonstrates knowledge of content, and to what extent children could benefit from knowing how to analyze in yet another communication system.

Third, additional studies involving African American children’s visual responses to content knowledge by African American researchers would offer a different perspective than that presented from a White perspective. From early black scholars like W.E.B. DuBois and Booker T. Washington to more contemporary black scholars like bell hooks, Lisa Delpit, Joyce King, and Gloria Ladson-Billings, these scholars have brought forward strong insights from their research into the teaching and learning of black children. Studies on African American students often are viewed from a deficit model. However, when viewed from a black lens, African American students are positioned equally as their white counterparts, and should be afforded an equitable way to demonstrate their learning in multiple ways and across communication modes, including
the visual. With African American children, certain standards has been established, and continued research by African American scholars about African American children is critical if these children are to be successful in their own rights. Studies should seek out perspectives—that make pedagogy and assessments relevant to the lives of the black children population.

**Conclusion**

This study has opened a new way of thinking about how students living in a world that is highly focused on visual texts and visual images can be afforded access to learning in alternative, in addition to traditional, ways that open the doors for their future success. Furthermore, teachers who have an understanding of art and what, how and why it means something to students can have an impact on their learning. Such knowledge and experience opens up more avenues through which African American students can demonstrate what they know. If standardized measures of knowledge continue to be the only scientific way through which children are assessed, then those decision-makers must shift how children are assessed. In this fast-paced and digital world in which people must navigate all types of texts, including visual, it is imperative that teachers learn to read and analyze these texts in order to help their children participate more democratically in this world.
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APPENDIXES

APPENDIX A

Teacher Interview Protocols

Before the VDA Professional Development

1. Talk about the different ways you assess students’ content learning. Why do you use these methods and what do you learn about students’ knowledge?
2. Have you ever been assessed on content in any other way than through testing? Talk about these assessments.
3. Do you like art? Why?
4. Why do you think students have difficulty in passing the social studies portion of the standardized tests?
5. Talk about how you think standardized tests measure learning.
6. Do you include art (e.g., drawing, painting, building models) as part of your instruction? If so, why?
7. If you do include art, how do read students’ art?
8. If you do include art, do you ask children to talk about their art in relation to the content in which they constructed their art?
9. Do you think students can convey meaning of content through their drawings? If so, why and if not, why not?
10. Do you study students’ drawings to gain understanding about what they know about specific content? Explain.
11. Do you think it’s important for upper grade students to draw in class? Explain.

During the VDA Professional Development

1. What are you learning about visual constructions of meaning?
2. What are you learning about analysis of visual information?
3. Tell me about the drawing that you made in this professional development.
4. Talk about your
   a. Use of color?
   b. Size of objects?
c. Placement of objects?

d. Orientation of canvas?

e. Why did you put [ object ] in the middle of your drawing? Top, bottom, left, right? Why did you choose these colors and objects? What do certain objects represent?

After the VDA Professional Development

1. Do you like art?

2. Do you think that visual images can communicate content?

3. What do you think of VDA?

4. What do you think you might learn by reading and analyzing your students’ art in your class as it relates to social studies?

5. Do you feel student drawings carry meaning that can determine what they know about a social studies topic? Explain why or why not.

6. How might you read and/or analyze an image that children create?

7. Do you think it might be good for students to self-assess through their drawings?

8. What do you think students will communicate about content when asked to talk about their drawings?

9. If at all, how will you use visual discourse analysis going forward?
APPENDIX B

Student Interview Protocol

1. Will you please tell me about your drawing?
2. Did you like doing this drawing? Why?
3. Do you like your drawing? Why?
4. What were you trying to say about [social studies question]?
5. Will you please tell me about the objects that you put in your drawing?
6. I see that you
   a. Drew from top to bottom. Will you tell me why?
   b. Used [colors, pencil]. How did you come to these choices?
   c. These objects are larger than the others, why did you do that?
7. Would you like to add something to your drawing as we talk?