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INTERACTIVE WHITEBOARD TECHNOLOGY WITHIN THE KINDERGARTEN VISUAL ARTS CLASSROOM

by

TRACY V. KUZMINSKY

Under the Direction of Dr. Melody Milbrandt

ABSTRACT

The purpose of this document is to design and record a Kindergarten visual arts unit using the Activboard to determine how student achievement, motivation, and interest are impacted. Methods of data collection include both observational recording and student interviews. The Activboard facilitates a highly interactive study of the art curriculum and data collected throughout the unit indicates a positive impact on student achievement, motivation, and interest.

INDEX WORDS: Activboard, Activstudio, Interactive whiteboard, Elementary art education, Art education, Student motivation, Student achievement, Visual art

INTERACTIVE WHITEBOARD TECHNOLOGY WITHIN THE KINDERGARTEN VISUAL
ARTS CLASSROOM

by

TRACY V. KUZMINSKY

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Art Education
in the College of Art and Design
Georgia State University

2008

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Tracy Victoria Kuzminsky
2008

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ARTS CLASSROOM

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Interactive Whiteboard Technology within the Kindergarten

Visual Arts Classroom

Several years ago a fourth grade teacher in my elementary school was the pilot teacher testing a new product called an Activboard. The teacher was given an opportunity to speak to the teachers within the school about this new technology. My principal was considering a purchase of Activboards for the entire fourth grade team. The pilot teacher was very enthusiastic about the possibilities of this tool, and after seeing her presentation, I was very interested in this technology myself.

I spent some time in her classroom working with the board and the accompanying software, and I was completely hooked. I knew how exciting this technology was for me, and I could imagine how exciting it would be for visual and kinesthetic learners. I could envision no better instrument to implement a visual arts curriculum. The only question would be how to get the support and the funding. I knew this technology would be an important advancement for my art classroom.

After many conversations with my principal and much persuading, the school purchased this technology for my art room. I was not wrong about this technology; it has been the most significant teaching advancement I have ever made within my classroom. All of the traditional tools for implementing an art program remain important in my teaching and a variety of mediums for art production are still utilized. Ray (2007) states that:

Technology, of all types, is forcing educators to evaluate the way they do things and aggressively explore new models of teaching and learning. Chalk, blackboards and textbooks are still essential components for educating students, but there is no question that in order to [successfully] prepare our students for life beyond the classroom, we must incorporate a greater level of technology into our schools. (p.18)

Purpose of the Study

It is my impression that many educators view the interactive whiteboard technology as more user friendly and valuable to older students. The classrooms in my school are an example of this bias. Other than the Activboard in the art room, my school has only purchased Activboards for the fourth and fifth grade classrooms. It is the administration's intention to purchase boards for the third grade next. I think this age bias is a fallacy. It is my belief that younger students benefit equally from the inclusion of the Activboard technology, possibly more.

Burton (2001) examines a study of instructional strategies in art education. Teachers polled for this study rate instructional strategies that students find motivating and inspiring. Educators believe that seventy-six percent of students are eager to participate in art production; however, it is sometimes difficult to engage them in discussions art criticism and art history. Only seventeen percent of teachers polled believe that art history and art criticism are motivating to their students. The Activboard may have the potential to improve students' motivation, achievement and interest in these more difficult to teach areas of the art curriculum. The study of art history, art criticism, and aesthetics may be more highly interactive which makes a great difference in engaging our youngest learners.

I am not an educator that has always embraced teaching through technology. This equipment has changed my mind. I believe it improves upon traditional methods for delivery of instruction. The advantages of Activboard include interactive features that are easy to learn for both the students and myself. I must admit, prior to my research, to a personal bias regarding the use of the Activboard. The purpose of my study will be to design and document a Kindergarten visual arts curriculum using the Activboard. I will determine in what ways student achievement, motivation, and interest are impacted.

Definitions of Key Terms

Activboard. An Activboard is an electronic, interactive whiteboard that is mounted on a wall or a stand and connected by a cable to a digital projector. The projector is placed on a table or mounted to the ceiling and connected to a computer.

Activstudio. Activstudio is the companion software distributed with the Activboard and designed specifically for teaching and learning environments.

Activpen or pen tool. The Activpen or pen tool is a self powered device that communicates with the computer. It performs the same left and right click functions as a mouse and enables control of the cursor in an identical manner.

Activote. The Activote is an assessment tool for learning environments. The students each hold an Activote and register their answers on the device which is integrated with the Activboard system.

Visual Thinking Strategies (VTS). Vue (2008) defines Visual Thinking Strategies (VTS) as a visual arts program for students and teachers that uses art to teach thinking, communication skills, and visual literacy. Growth is stimulated by three things: looking at art of increasing complexity, responding to developmentally-based questions, and participating in group discussions that are carefully facilitated by teachers.

Participants

Kindergarten students from Midtown Elementary School in Georgia have participated in a visual arts curriculum presented with the aid of an Activboard. These students were exposed to the Activboard technology for the first eighteen weeks of the school year and were participants in this curriculum beginning in late January and concluding in early March of 2008. There were seventeen total participants. As of January 1, 2008 ten of the study participants were six years

old and seven of the study participants were five years old. According to the published city demographics, these students come from a town with a median household income of 84,595.

Methodology

I have documented the ways in which the inclusion of an Activboard has resulted in strong student motivation, interest, and achievement within the visual arts classroom. In my quest to collect data to document the use of the Activboard, I decided not to have a control group. Therefore, other qualitative methods of data collection have been employed.

Observational Recording. One method of data collection for this study was observational recording. Various methods of observational recording can include: immediate notes, postponed notes, checklists, rating scales, interaction diagrams, audio recording and video recording. Each of these methods has advantages and disadvantages. For my purposes, classroom sessions were videotaped and rubrics were designed to assess the following variables: student body language, student responses, and student desire to participate at the Activboard. I have also noted unanticipated areas of impact relating to motivation and interest, either positive or negative. Data was collected from these rubrics, compiled, and graphed.

Interviews. Interview strategies were also developed. For the purposes of my research, I have conducted interviews with a loose question strategy. A loose question strategy employs the use of broader general questions. Thomas (2005) argues that a loose question strategy is a good method for revealing varied responses and interpretations and may result in unexpected but valuable insight. Students were questioned regarding their feelings about the use of the Activboard. Three general, broad questions were designed to allow for student interpretation and resulted in varied student responses. The questioning centered around student feelings regarding

the inclusion of the Activboard within the art classroom and what students found enjoyable about the technology. The general interview questions used to prompt the documentation are listed in the appendix.

Chapter Two: Review of Literature

The History of Technology

Currently, at the National Museum of American History, there is a 14,000 square foot display featuring important items from computer history. The display has over 900 artifacts from Samuel Morse's telegraphs to early personal computers. The Computer History Collection includes pieces relating to the creation, compilation, modification, management, and application of information in modern American society. These items chronicle the advances made in computer technology which led up to the creation of the earliest recognized computer generated artwork in the 1960's. (Smithsonian, 2007, Computer History Collection, para.1)

Throughout history people have searched for a vehicle to communicate and express ideas. Artists have chosen to share and convey their views through visual art. Artists have the necessary tool to impart their thoughts and expressions; however, not all people consider themselves artists. Today the computer can be an answer for the non-artist and artist alike in the quest for communicating and expressing ideas. Computers are an accessible and successful means for all people to achieve this goal (Pearson, 1988).

Technology is everywhere. Our society has television, internet, and cellular phones. Most people have a personal computer, and many have more than one. In a favorite restaurant the server places the order on a computer. When food is purchased at the grocery store or a movie ticket is paid for, today's technologies are utilized. Technological advances are also evident within schools. Many schools have computer labs, and traveling computer labs which consist of a cart carrying 30+ laptops and a wireless network hub. Teachers often have laptop computers for planning, grading, researching, communicating, and imparting knowledge to students.

Despite the infusion of technologies within this society, many people have approached computer technology with some trepidation. Technology has not always been user friendly and it takes time for many people to become comfortable with computers, peripherals, and software. The time and resources to learn may not be available, and the frustration in becoming accustomed to technology can be initially overwhelming. Oppenheimer (1997) questions what might be given up if technology is embraced wholeheartedly. He believes technology encourages isolation and introspection and more traditional methods of communication and expression may be diminished.

Although the public's resistance to computer technology still exists, it appears to be waning. What reason exists for the change? This radical shift in attitude can be attributed to the affordable personal computer. The availability and accessibility of computers is a relatively new occurrence. Even for those who cannot afford a personal computer, there are often computers available in public libraries. Accessibility and time with computers and has allowed the public to interact and learn. It has changed the way the public views today's technology (Goodman, 1990).

Technology for the Artist

Like computer art, photography as an art form was not widely accepted in its infancy. Early photographers were enthralled and excited by the technology; however, there was a belief that simply photographically reproducing an image was not an art form. Over time, and with the help of many artists, the public began to see that photographers can control and manipulate an image, similar to the way a painter controls and manipulates a brush. The lighting, editing, shutter speed, film speed, and countless other variables are decided upon by the photographer. The photographer can present a particular viewpoint or controlled version of reality.

Photography became an art form when the artists chose to think and create conceptually. The world started to view photography as art (Pearson, 1988).

The gradual acceptance of photography as art parallels society's recognition of computer art. Society has seen the benefits of technology in countless areas throughout the world. Computer artists have overcome the public's initial resistance. A negative connotation regarding the term *computer art* lingered for some time. Why? Humphries (2003) suggests that the public may have misunderstood the creative process for computer artists. She also wonders if the public questioned how to best evaluate the aesthetic value of a computer generated artwork. One of the biggest battles for computer artists was with the galleries. Gallery owners were reluctant mainly due to "practical questions of marketability, particularly the difficulty in assigning a financially profitable price to a work of art that is virtually endlessly reproducible" (Goodman, 1990, p.251).

A computer generated image does not involve less decision-making by the artist. The computer is simply the tool and medium the artist chooses to employ. Every action the computer takes is directed by the artist. Humphries (2003) believes that, like all other mediums used by artists, the chosen computer hardware and software result in a distinctive "mark". The media is chosen by the artist, as any other media would have been, and the resulting art product is planned and intended by the artist. Humphries (2003) also believes that the criterion for evaluating computer art does not actually differ considerably from that of traditional art forms:

Aesthetic factors of art encompass three general areas: art media or materials used, visual design that results form arrangements of art elements and principles, and art content, or subject matter. Applying these as criteria, others have found that computer art in many ways exhibits similarities to traditional forms of art. From the standpoint of art history, computer art can be considered a legitimate art form emergent from the hands of artists engaged in pursuit of traditional aesthetic concerns - concerns that have preoccupied all artists throughout time. (p.19)

Artists that choose computers for art production can be afforded some interesting possibilities.

Each artist's studio is unique, and the computer's place within the studio can be equally so.

Humphries' 2003 report further illuminates the use and functions of the computer within the artist's studio:

The distinguishing features of the computer which allow artists to use it as a tool and medium in art production are determined by hardware and software. Any physical electronic components that make up a computer system are referred to as the computer hardware. Software, in the form of a computer program, or set of instructions written in computer code, directs the computer in its function under the auspices of an artist's commands. There are broad categories of software that artists can use to achieve different results. Computer artists can even create their own software programs. (p.15-16)

The computer is a very efficient tool for the manipulation of artwork design. Changes and experimentation within the design are faster and easier. For some artists, the design would likely be the point of departure and more traditional media would be used to execute the design. Other artists place the computer at the heart of all production. In these cases, the computer output is the artwork (Goodman, 1990).

There is, of course, a spectrum of applications between these two scenarios and the possibilities today are almost limitless. In fact, computer science discoveries even allow us to "model many subjects that we take for granted in the world around us – such as the reflection of light on water, the transparency of a prism, or the bark of a tree" (Goodman, 1990, p.250). The computer recognizes the complicated mathematical algorithms and sequences of instruction necessary to create this imagery. Another benefit of computer artwork is the ease of transport and storage of artworks. A laptop fills only a minimal space and weighs only a few pounds (Pearson, 1988).

If these are the capabilities of *today's* computer, then imagine what the future may hold! The pattern of technologies within our past seems to indicate decreased cost and size of

equipment, paired with an increase in performance and availability over time. If that pattern holds true for the computer, then we can look forward to better, faster, cheaper, smaller computers in the not-so-distant future. The public and artists have largely accepted the potential of computer generated artwork. It is likely that computer arts will continue to gain popularity as the hardware and software expand possibilities for today's artist.

Technology in Education – A Call for Change

The increase in technology education can be attributed to arguments for reform at the school level. There is a widely held belief that “technology education has been linked to improved industrial and economic performance” (Mulberg, 1993, p. 301). Although, there is some question as to what technology education actually is. How should we define the nature, meaning, and role of technology within our schools? Most teachers would agree that current technology education encompasses technical skills but is not limited to them. Traditional instructional strategies utilized within classrooms may no longer be viable. Teachers, and perhaps specifically art teachers, are “well-positioned to reconceptualize computer [art] education” (Johnson, 1997, p.47).

Leaders and research are needed to assimilate technology successfully and authentically into our pedagogical practices. Krug (2004) argues that there are numerous factors for curriculum designs to consider. Technology integration will foster computer literacy and computer fluency. Educators must consider: a learning environment that engages students with research proven practices and promotes a demanding curriculum utilizing today's current technologies, professional competence with technology, support for financial needs, electronic resources, networks and training to advance district goals, and finally, support for the methods and time necessary to assess student learning (Krug, 2004).

Delacruz (2004) notes that many educators face varying technology working conditions. Unfortunately many teachers that see the value in technology education do not have the necessary support, despite promises at state and district levels. These teachers are faced with a dilemma: how can the state mandated technology standards be met without resources, training, and time? Teachers are “expected to reach specific levels of technology proficiency, to use new software in their curricular planning, and to develop lessons that involve students in computer-facilitated learning” (Delacruz, 2004, p.11). Delacruz also cites studies that identify factors limiting some educators in their quest to integrate technology. The issues facing these educators include: lack of computer access, a shortage of technology support personnel, deficient administrative support, lack of funding for equipment and software, no time for practice and planning, and legal concerns regarding student internet usage.

Teachers that are provided with technology resources, training, and time can explore some interesting pedagogical options. Kundu & Bain (2006) inform us that:

Current educational theory holds that meaningful learning requires students to interact with new information in ways that enable active inquiry. Students should have opportunities to construct their own knowledge and to develop their own cognitive maps, connecting concepts with meaning making. As students actively engage with learning, they can move to higher levels of cognition that involve applying, synthesizing, and evaluating knowledge. (p. 6)

Teachers facilitate student investigation, and students direct their own discovery. This is a constructivist approach and can be enhanced through technology integration. Solvie (2004) utilized current technologies to address the needs of a diverse learning population. She chose to enhance students’ early literacy skills and her own instructional practices with a digital whiteboard and accompanying software. Solvie’s research indicated higher student attention to task while using the technology. She found that scaffolding learning within literacy lessons became interactive, kinesthetic, and an exciting alternative to traditional instruction. Solvie

notes that her first grade students were interested and contributed to the lesson when she used this technology for instruction, but when they were able to manipulate information themselves their enthusiasm and interest were exceptional. She concludes her study stating that technology can not only be effective, but may be very powerful in helping us to reach young learners (Solvie, 2004).

For older students an interactive computer hypertext is another method for constructivism through technology. Text, images and video are submitted by the readers in response to a subject. Thoughts and ideas scaffold upon one another. Hypertext is “text that branches and allows choices connected by links which offer the reader and creator different pathways” (Carpenter & Taylor, 2003, p.41). Although an exciting educational avenue, the availability and accessibility of information due to technology is virtually limitless. Teachers must coach students to check and recognize the validity of any information gathered on the web. It is also the educator’s responsibility to review the students’ web activities. As with any web site, a hypertext may be educationally valid or it may be inappropriate for students to view (Carpenter & Taylor, 2003).

Future directions in technology education will produce some expected changes. Looking forward, technology will permeate all levels of education. According to Brown (1989), higher education, although immersed in tradition, tenure, and budget concerns, will continue to close the gap between K -12 schools and the university due to continued recognition of the importance of technology integration. Changes in technology within the educational setting will necessarily saturate our schools because they will continue to pervade our society. Future possibilities are extraordinary, and educational needs will continue to be shaped by our changing world.

Technology in Art Education

Hubbard (1995) cites various ways in which the computer impacts visual arts education. He lists teacher preparation, delivery of instruction, and lesson design that encourages students' achievement of curricular goals. The computer can be a very capable device for the manipulation of artwork design. Some commonly used software for students to create and manipulate imagery are KidPix, Inspiration, and Photoshop. These programs are among many that allow fast, easy changes and experimentation within the design. The design completion could be the point at which the student would choose more traditional media, or the computer may be the source for the student's entire work. Youth has an advantage over adults in our society. The young have grown up with technology and are usually not fearful of it. They have been taught computer literacy skills in school; they have learned others on their own, and still more from savvy friends. Students today will advance through their schooling with a better grasp and the technical skills necessary to create their artistic visions.

Burton (2001) discusses ways technology can impact art education is through our pedagogical practices. Computers may be used for planning, grading, researching, and communicating. Many teachers also have access to multiple computers or equipment that allow students access. Art teachers, like other teachers within the school building, can encourage meaningful learning experiences through technology. We can explore criticism and aesthetics, create original art, and view virtually any artwork in the world. Technology offers teachers another opportunity to create unique, interactive learning situations.

Art educators have always been the creative spirit within the school setting. Krug (2004) asserts that explorers and innovators are needed to assimilate computers, software, and peripherals successfully into instructive practices. Johnson (1997) and Delacruz (2004) believe

that art educators may be well suited for the job. Many already develop curricular connections with technology. Who better to conceptualize the manner in which technology can genuinely be incorporated, than the visionary within the school? Art itself is a form of discovery and parallels the creation of a technologically integrated curriculum.

The Activboard in Art Education

There are numerous tools for technology integration within the visual arts classroom; however, a noteworthy development is the Activboard. As stated earlier, the Activboard is an electronic, interactive whiteboard. The board is mounted on the wall and connected by a cable to a digital projector. The projector is placed on a table or mounted to the ceiling and connected to a [laptop] computer. The computer is loaded with the companion software called Activstudio. Computer images are then projected onto the board where they can be manipulated using a pen tool. The pen performs like the computer's mouse, reading input and creating a visual of that input. The pen tool is wireless and battery free. The companion Activstudio software contains a library of seemingly endless images, backgrounds, and annotation resources.

Cobitz, Byrd, & Cockman (2002) list numerous other elements of this technology's infrastructure including the Activote. This assessment device allows teachers to track group and individual understanding. The Activotes are a class set of devices that look like television remote controls. The teacher can create questions that will display on the Activboard flipchart. The correct answers are embedded into the flipchart created by the teacher. Students answer remotely from their seat using the Activote and the students' input can be instantly graphed onto the Activboard to reveal the group's understanding. Activotes are numbered which allows teachers to track an individual student's understanding of a particular concept; even though the

student may be unaware the teacher is doing so. Activotes provide a motivating and unique assessment or test rehearsal.

Teachers enjoy some practical features of the Activboard. First, Gatlin (2004) recognizes that teacher preparation and lesson planning can be done anywhere. The board itself is not necessary for planning. Lesson design can be done utilizing just the laptop and Activstudio software, which has been loaded onto the laptop. Gatlin also recognizes the ease of saving and retrieving lessons as another benefit. Teachers can save or print any lesson or version of a lesson. Bell (2002) says the equipment interfaces with many peripherals like digital cameras, scanners, video cameras, and VCRs. Much of the imagery accessed through this peripheral equipment can be manipulated and marked upon and then saved for future reference.

Teachers do not have to redesign the core of their lessons to incorporate this technology. In fact, the Activboard will “enhance their lesson plans with multimedia features and interactivity that captures students’ attention and motivates them to learn” (Gatlin, 2004, p.2). This tool can be especially useful for classrooms with limited student computers and limited computer lab access. The students can effectively view and access any software or the internet during group instruction because of the size of the screen. Bell (2002) states the use of an Activboard can be viewed as cost effective if one considers the number of students that are impacted by a single laptop. This is particularly true in an elementary visual art classroom where an average of 700 students will be taught in a single week.

There are significant academic arguments to support Activboard use. To begin, “research [also] indicates that students respond to displays where color is employed, and marking can be customized to display a number of different colors” (Bell, 2002, p.1). Solvie (2004) lists several features of the Activstudio software. For example, the software allows for flipcharts to be

exported to the PowerPoint program. The PowerPoint can then be formatted to loop continuously during art production for students' review. Additionally, student motivation is increased dramatically. "Most of us live in a world of constant stimulation. We shift our perceptions and attentions continually among numerous stimuli, activities, and subjects" (Hickman, 1990, p.282). Children are used to entertaining, sensory stimulation and educators must capture the attention of today's child. Children of all ages are excited and captivated by the board. The board allows for interactive student involvement and does not encourage isolation as Oppenheimer (1997) suggested technology would. This tool can support a constructivist learning theory, in which teachers facilitate student investigation, and students direct their own discovery.

Students can benefit from the Activboard technology during the study of art history and art criticism. Viewing artworks and reading inferences within artworks are well suited to Activboard use. Students may use Visual Thinking Strategies, or VTS, to think about the imagery before them and communicate the story within the artwork to the teacher and their peers. Vue (2008) defines VTS as follows:

Visual Thinking Strategies (VTS) is a visual arts program for students and teachers that uses art to teach thinking, communication skills, and visual literacy. Growth is stimulated by three things: looking at art of increasing complexity, responding to developmentally-based questions, and participating in group discussions that are carefully facilitated by teachers. (para. 1)

Students may be instructed to look at an image displayed on the Activboard. Within the VTS process students are asked "What do you think is going on in this picture?" "What else do you notice?" or "What do you see that makes you say that?" The Activboard is ideal for distinguishing areas of interest. The pen tool, highlighter tool, and other items within the software allow for easier identification and greater student understanding. Throughout the VTS

process the teacher acts only to facilitate to the students' own discovery, once again supporting a constructivist learning theory. Students look carefully at the artworks, develop opinions, verbally express them, and build on each other's ideas with the aid of the Activboard technology. The Activboard positively impacts both learning outcomes and motivation during the VTS process.

Teacher satisfaction with the Activboard is high. Gatlin (2004) claims the excitement of this new technology has visibly changed the energy and activity of classrooms throughout his school. He goes on to state that students love the interactivity and the multimedia features and learning has become more entertaining. Levy (2002) argues the research proposes that schools will benefit from developing much more widespread use of multimedia resources across various disciplines. She goes on to say that observations and interviews signify that this tool may help to improve learning outcomes and heighten students' motivation.

Chapter Three: The Lesson Plans

Overview of Lessons

Students participated in an eight week unit relating reading and understanding artworks to reading and understanding information in books. Students compared stories in artworks to stories in children's literature. This unit encouraged both literacy skills and visual arts understanding.

Lesson One Synopsis. Students viewed and discussed artworks that contained a beginning, middle, and end. Natural connections were formed between Language Arts, Reading, and Visual Art. The Activboard and Activstudio software allowed students to identify areas within art reproductions that showed a beginning, middle, or end of a visual story. Movable arrow or pointer annotations, spotlight, or highlighter tools were utilized for interactive identification. Students visualized and illustrated a trip through places within their town. Students were given an opportunity to move local business and landmark photos into a practice composition using the Activboard and Activstudio software. Students extended their understanding to visualize, plan and produce an original composition depicting movement from one place to another, placed in left to right horizontal format. The *evaluation* level of Bloom's Taxonomy was achieved.

Lesson Two Synopsis. Students practiced Visual Thinking Skills (VTS) in looking at the narrative artwork Tornado Over Kansas by John Steuert Curry. Students answered the following: What is happening in this story and how do we know? What happened just before this? Just after? The Activboard and Activstudio software allowed students to view artworks and identify clues within the artworks. Identification of story clues became easier through circling, highlighting or spotlighting tools within the software. Areas were clearly recognized by

the other students and scaffolding of information became easier. Students evaluated artworks, and make judgments about what they and others noticed within the artworks. This activity enabled students to effectively build upon lesson one. Students moved a self-portrait paper doll through their created composition from week one. They verbally created and told the story of their character's travel through the composition. Therefore the *evaluation* level of Bloom's Taxonomy was achieved.

Lesson Three Synopsis. Students viewed and discussed Beverly Buchanan reproductions. Buchanan's two and three dimensional artworks represent a powerful visual story. Her structures represent the people, the places, and the memories in her life. The structures speak a story to the viewer. Students identified areas of interest within Buchanan's composition using the pen, highlighter, spotlight, or arrow tools. Students speculated about what might be behind the door of the Buchanan shacks. Students then produced a three-dimensional cut paper/mixed media installation. This group created sculpture is a Buchanan style shack on one side and an open "doll house" on the other. Their self-portrait paper dolls once again traveled through their composition. The dolls moved from the door of the shack, through the various rooms in the structure. The doll passed many sculpted objects along the way and the artists were required to verbalize the story to the class. Students completed this lesson with a writing activity that identified the beginning, middle and end of the "walk" through their structure. The *evaluation* level of Bloom's Taxonomy was achieved.

Detailed Lesson Plans

Lesson One.

Title of Lesson: Sequencing Imagery

Grade Level: K

Designer of Lesson: Tracy V. Kuzminsky

QCC or (Midtown County Schools) Content Standards:

ART MAKING

I. Creates artwork reflecting a range of concepts, ideas, subject matter

B. Creates artwork inspired by natural connections with math, language arts, science, social studies

III. Understands and applies media, techniques, and processes

A. Uses a variety of materials/techniques to create artwork, including but not limited to markers; paints; cut paper/mixed media/collage; clay – pinch construction, textured slab

IV. Self-evaluates art learning and develops habits of excellence

B. Links art terms and production with math, language arts, social studies, science curriculum

READING / WRITING & ART

“Read” art just as we read text - uses the same kind of processes just with different symbols; interpretation (comprehension)-pictures tell a story (characters, events); sequencing-before and after art image; connect life experiences to artwork; retell important information in own words

Lesson Theme: Midtown County Unit 3 Kindergarten: Art Is A Form Of Creative

Communication

Objectives:

Student will compare and contrast reading of text to reading of imagery. Students will sequence a series of simple images in their correct order (i.e.-a caterpillar, a cocoon, and a butterfly). Students will recognize what comes first, next, and last in that visual story. Students

will then extend that understanding to create a collage of places in their community. They will move a self-portrait paper doll through their collage while verbalizing the beginning, middle and end of their trip through town.

Resources:

- Activflipchart titled Kindergarten-Sequencing Imagery containing simple sequencing exercises and photographs of businesses and landmarks in the local community.
- Self-portrait paper doll

Introduction/Motivation:

Day One:

Students may recall having learned to sequence simple imagery in their regular classroom. It is a skill building toward their ability to read. Students will discover or revisit sequencing imagery during the introduction of this lesson. Students will be given an opportunity to use the Activboard hardware and software during this exercise and manipulate images on the board. Students will then be asked to identify business and local landmark photos from our town. Landmarks have been specifically chosen to encourage enthusiasm (i.e.-McDonalds or Blockbuster Video). Students will be asked if they have ever visited these landmarks. Have they ever visited more than one in a single day? Where did they go first? Where did they go next? Where did they go after that? Students will move actual photos of the town into a left to right sequence using the Activboard and accompanying software.

Students will extend understanding of visual stories to plan and produce a collaged image of local landmarks. Students will learn the term collage. Students will cut and enhance photocopies to create an original composition of multiple local landmarks. Careful application of glue, overlapping of Xerox imagery, and good utilization of space within the composition will

be discussed. Student will begin to enhance the Xerox copies with their own colors and creative additions.

Day Two:

Students will view and recall the flipchart from day one. They will review and sequence simple imagery from day one. Students will review and sequence local landmark photos within the flipchart to represent a trip around our town. Students will recall the term collage, and they will complete the collage of Xerox copies of landmarks, sequenced in a left to right format.

Student will complete their enhancement the Xerox copies with their own colors and creative additions.

Day Three:

Students will Move a self-portrait paper doll through collaged composition. As they move “themselves” through their town they will verbalize their trip to the class. Where is your trip around town beginning? Where will you go next? Where will you end up? Students will connect to their life’s experiences to their artwork as they verbalize the visual story of a trip through their community.

Content Paper:

A collage is an artwork created by adhering items such as newspaper, wallpaper, printed text, illustrations, photographs, cloth, string, etc., to a flat surface. Many times the items used in a collage are "found" materials. This process was introduced by the Cubist artists and is still used today. "Collage" was originally a French word, derived from the word coller, meaning "to paste." (pr. kuhl-lahzh')

Examples:

Romare Bearden (American, 1914-1988).

Visit the Romare Bearden Foundation and "Let's Walk the Block," about Romare Bearden's 6-panel 1971 collage, *The Block* at the Metropolitan Museum of Art, New York.

Instructor's Procedures:

Day One:

The instructor will have 7"x21" paper, Xerox copies of local landmarks, glue, scissors, pencils, crayons, artwork example, and art shirts ready for use. The drying rack will be cleared in preparation for collaged imagery. Activflipchart will be created to enhance lesson objectives, and will be projected onto the Activboard as the class enters the room.

Day Two:

The instructor will have 7"x21" paper, Xerox copies of local landmarks, glue, scissors, pencils, crayons, artwork example, and art shirts ready for use. The drying rack will be cleared in preparation for collaged imagery. Activflipchart from week one will be projected onto the Activboard for review as the class enters the room.

Day Three:

The instructor will have artwork from weeks one and two, and student self portraits ready to distribute to the class. Activflipchart from week one will be projected onto the Activboard for review as the class enters the room.

Materials and Materials Management:

5"x21" paper

Xeroxed landmarks

Glue

Pencils

Scissors

Crayons

Artwork example

Art shirts

Activflipchart

Activboard hardware and software

Student Procedures: The student will:

1. View and discuss Activflipchart titled Kindergarten-Sequencing Imagery.
2. View and discuss imagery within the flipchart representing beginning, middle, and end of a visual story.

3. Sequence imagery to accurately represent beginning, middle and end of a visual story.

Activboard tools such as arrows, pointers, spotlights, or highlighters may be utilized for interactive identification.

4. Visualize a trip through our town. Where will you go first? Next? Last?

5. View local landmark photos. Identify local landmarks.

6. View teacher demonstration.

7. Manipulate actual local landmark photos into a “timeline”. A left to right composition will be created to represent a trip through our town. “Read” art just you read text - use the same kind of process with different symbols.

8. Extend understanding of visual stories to plan and produce a collaged image of local landmarks. Cut and enhance photocopies to create an original composition of multiple local

landmarks. Take care with application of glue, overlap Xerox imagery, and utilize space well within the composition.

9. Move a self-portrait paper doll through collaged composition. Where are you now? Where were you before? Where are you going? Connect life experiences to artwork and verbalize the visual story you have created to the class.

Closure/Review:

On day one students will view and discuss sequencing of images to represent the story of a trip through their town. On day two, students will review their learning from day one. By the close of day three, students will move a self-portrait paper doll through their collage representation of a trip through town. Students will verbalize their visual story to the class.

Assessment:

Students will meet all four learning objectives. The first objective, the creation of an artwork inspired by a connection with language arts, is accomplished through the sequencing of imagery and the reading of visual imagery. The second objective, using a variety of materials/techniques to create artwork, including but not limited to markers; paints; cut paper/mixed media/collage, etc. is accomplished through the creation of a mixed media collage. The third objective, linking art terms and production with language arts curriculum is accomplished through the sequencing of imagery and terms like “beginning, middle, or end of the story”. Finally, the fourth objective is “reading” art just as we read text - using the same kind of processes with different symbols; interpretation and comprehension of pictures telling a story connecting life experiences to artwork; and retelling important information in own words. This objective is accomplished throughout the creation of a collage of local landmarks, the movement

a self-portrait paper doll through the collage of their own town, and the verbalization of the beginning, middle and end of their trip through town.

Assessment Questions:

1. How well did student sequence imagery and read visual imagery?
2. How well did student create a mixed media collage?
3. How well did student use art terms and production that formed a natural connection with the language arts curriculum for Kindergarten students?
4. How well did student plan and execute a collage with awareness of lesson goals for craftsmanship and composition.

Figure 3.1. Lesson one assessment instrument.


Name: _____ Teacher: _____

“Sequencing Imagery”


	0 pts. each	15 pts. each	25 pts. each
English Language Arts and Visual Art Interdisciplinary Connection	The student's collage is not glued in a left to right format to emphasize beginning, middle and end of a trip through town.	The student's collage has some parts glued in a left to right format to emphasize beginning, middle and end of a trip through town.	The student's collage is glued in a left to right format to emphasize beginning, middle and end of a trip through town.
Collage	Students did not create a mixed media collage. Only the medium of cut Xerox photos were used.	Students created a mixed media collage using only two media. (i.e.-only cut Xerox photos and crayons were utilized)	Students created a mixed media collage using three or more media. (i.e.-cut photos, crayons, and tissue paper were used)
Vocabulary	The student did not use words beginning, middle, or end while orally explaining their collaged image.	The student used words beginning, middle, or end 1-2 times while orally explaining their collaged image.	The student used words beginning, middle, or end at least 3 times while orally explaining their collaged image.
Craftsmanship and composition	The student was not careful with application of glue, none of the images overlap, and spaces were left empty within the composition.	The student was sometimes careful with application of glue, at least one of the images overlap, and space was mostly full within the composition.	The student was careful with application of glue, at least two of the images overlap, and no space were left empty within the composition.

Grade: _____ Notes: _____

Figure 3.2. Lesson one Activflipchart.



Lesson
**Sequencing
Images of
Places in
Our
Community**



Essential Question(s):
How is looking at art like reading a book?

Figure 3.2. (continued)

OBJECTIVES:

ARTMAKING


- I. Creates artwork reflecting a range of concepts, ideas, subject matter
 - A. Creates artwork inspired by:
 - 4. careful observation of real objects
 - B. Creates artwork inspired by natural connections with math, language arts, science, social studies
- III. Understands and applies media, techniques, and processes
 - A. Uses a variety of materials/techniques to create artwork, including but not limited to markers, paints, cut paper/mixed media/collage; clay - pinch construction, textured slab
- IV. Self-evaluates art learning and develops habits of excellence
 - A. Recognizes and cultivates habits of mind necessary for artistic work:
 - 2. careful observation of real world
 - 3. care in craftsmanship (whole is larger than the parts)
 - B. Links art terms and production with math, language arts, social studies, science curriculum

READING / WRITING & ART

"Read" art just as we read text - uses the same kind of processes just with different symbols; interpretation (comprehension)-pictures tell a story (characters, events); sequencing-before and after art image; connect life experiences to artwork; retell important information in own words

Figure 3.2. (continued)

Have you ever read Eric Carle's Very Hungry Caterpillar? Can you tell me which of these should be at the *beginning, middle, and end* of the story?



Rearrange the objects so they are in the correct order.

Figure 3.2. (continued)

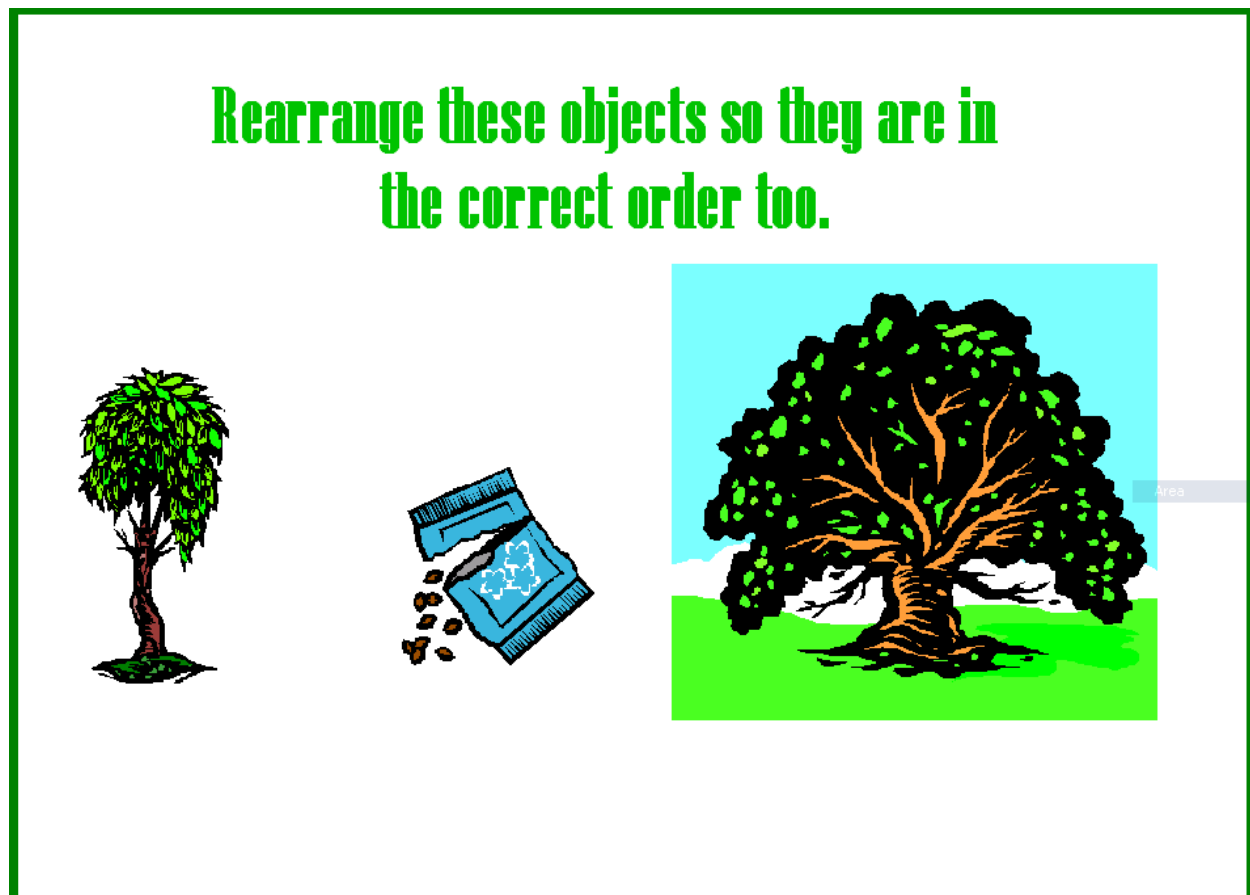


Figure 3.2. (continued)

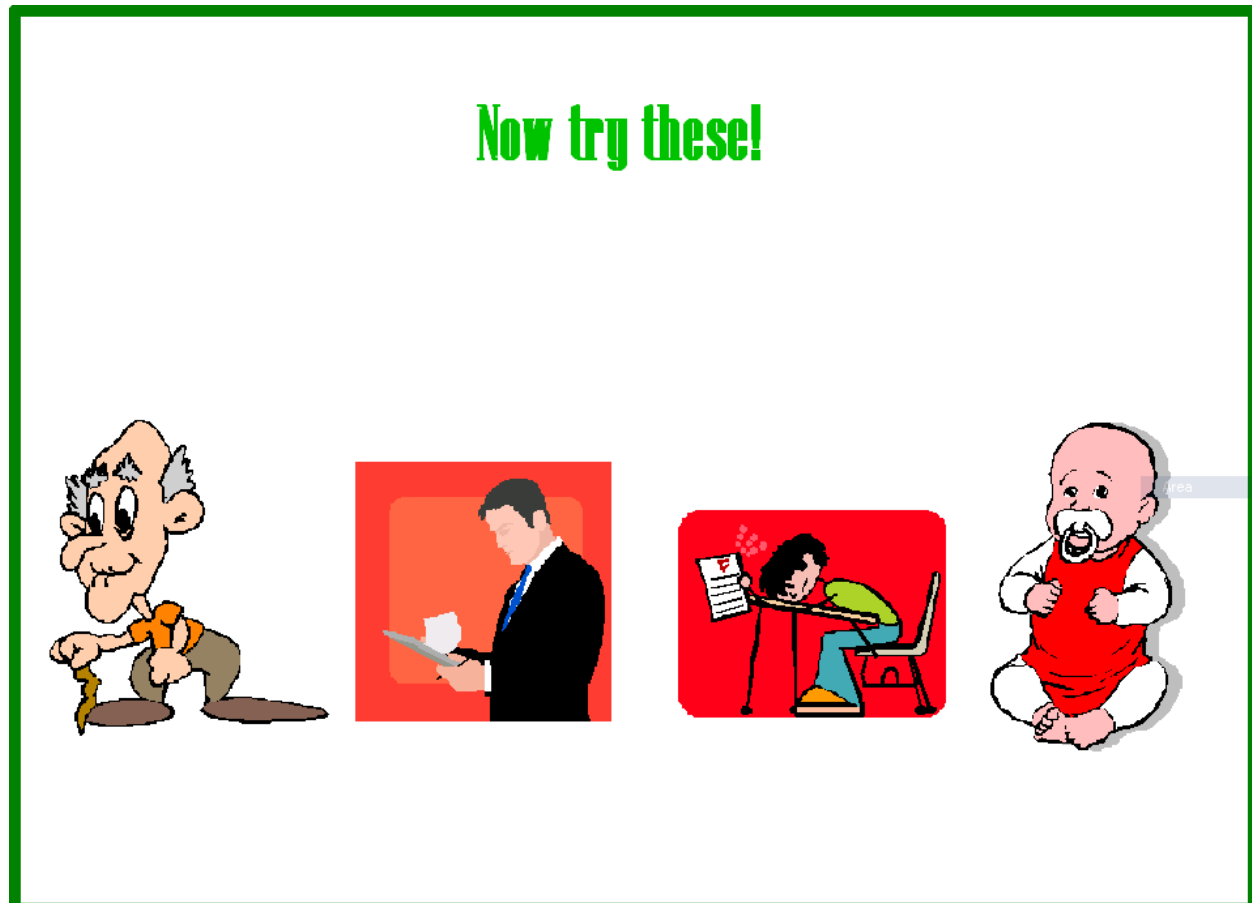


Figure 3.2. (continued)



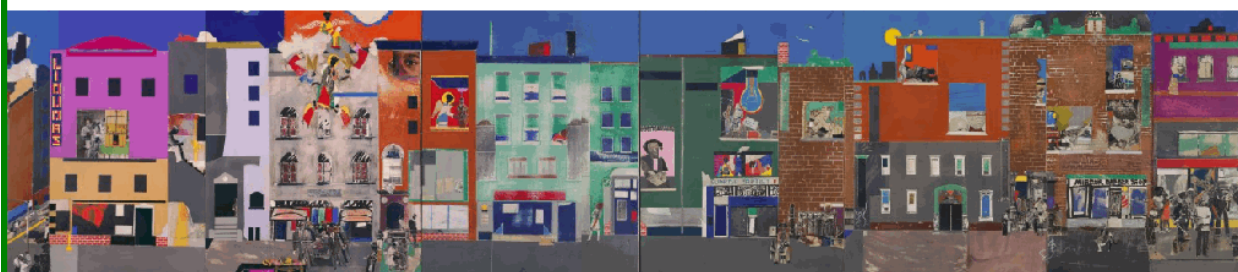
Figure 3.2. (continued)



Figure 3.2. (continued)

What is a collage? A collage is a picture made by gluing items like newspaper, cloth, string, or other found objects to a flat surface. Collage was originally a French word (coller) meaning "to paste".

Here is an example by an
artist named Romare
Bearden:




Romare Bearden. *The Block*. Collage, 1971. Metropolitan Museum of Art, New York.

You will be making a collage of a trip through places
in your own community!



Figure 3.2. (continued)



The Student will:

Day One

1. View and discuss Activflip chart titled Kindergarten-Sequencing Imagery.
2. View and discuss imagery within the flipchart representing beginning, middle, and end of a visual story.
3. Sequence imagery to accurately represent beginning, middle and end of a visual story. Activboard tools such as arrows, pointers, spotlights, or highlighters may be utilized for interactive identification.
4. Visualize a trip through our town. Where will you go first? Next? Last?
5. View photos of places in the community. Identify photos.
6. View teacher demonstration.
7. Manipulate actual community photos into a "timeline". A left to right composition will be created to represent a trip through our town. "Read" art just you read text - use the same kind of process with different symbols.
8. Extend understanding of visual stories to plan and produce a collaged image of local businesses and landmarks. Cut and enhance photocopies to create an original composition of multiple community locations. Take care with application of glue, overlap Xerox imagery, and utilize space well within the composition.

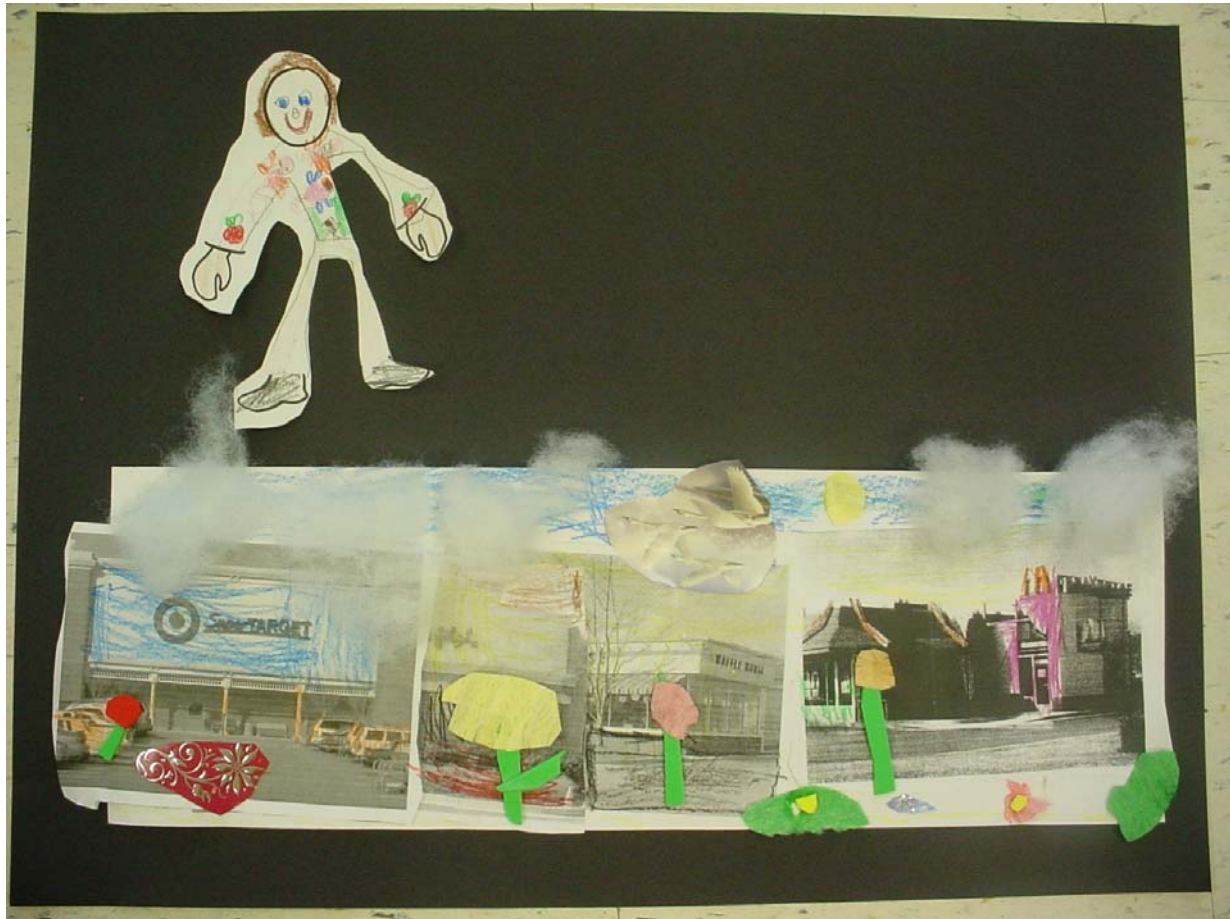
Day Two:

9. Review above steps. Complete collage.
10. Move a self-portrait paper doll through collaged composition. Where are you now? Where were you before? Where are you going? Connect life experiences to artwork and verbalize the visual story you have created to the class.
11. Submit artwork for teacher assessment.

Figure 3.3. Lesson one teacher example.



Figure 3.4. Lesson one example of typical student artwork.



Lesson Two.

Title of Lesson: Visual Thinking Skills

Grade Level: K

Designer of Lesson: Tracy V. Kuzminsky

QCC or (Midtown County Schools) Content Standards:

ART MAKING

IV. Self-evaluates art learning and develops habits of excellence

B. Links art terms and production with math, language arts, social studies, science curriculum

READING / WRITING & ART

“Read” art just as we read text - uses the same kind of processes just with different symbols; interpretation (comprehension)-pictures tell a story (characters, events); sequencing-before and after art image; connect life experiences to artwork; retell important information in own words

Lesson Theme: Midtown County Unit 3 Kindergarten: Art Is A Form Of Creative

Communication

Objectives:

Student will compare and contrast reading of text to reading of imagery. Students will view one or more narrative images. Students will be asked to explain what they see. What is happening? How do you know? What else do you see? Students will then be asked to suppose what happened just before the narrative image. Students will also be asked to make a judgment about what they believe happened just after the narrative image.

Resources:

- Activflipchart titled Kindergarten-Visual Thinking Skills containing several narrative artworks

Introduction/Motivation:

Day One:

Students may recall having learned to sequence simple imagery in their regular classroom. It is a skill building toward their ability to read. Students have also discovered or revisited the sequencing of imagery during the prior art lesson. This lesson will involve more abstract thinking. Students will be asked to suppose what happened just before and just after a narrative image. Although the information is not visually there, it is implied and there are clues within the artworks. It will be necessary for students to connect their own life experiences to the image in order to recognize these inferences. Identification of story clues becomes easier through circling, highlighting, or spotlighting tools within the software. These areas can then be clearly recognized by the other students and scaffolding of information becomes easier. Students will evaluate artworks, and make judgments about what they and others have noticed within the artworks.

Content Paper:

Vue (2008) illuminates the history of Visual Thinking Strategies:

VTs is based on the work of cognitive psychologist Abigail Housen and veteran museum educator Philip Yenawine. Housen has been investigating the nature of aesthetic development and its role in education for over twenty years. As part of her doctoral work at the Harvard Graduate School of Education in the late 1970's, she developed a measure and method for assessing aesthetic development. In 1983, she published her doctoral thesis "The Eye of the Beholder: Measuring Aesthetic Development," which includes her well-documented stage theory. Yenawine has directed education programs at many museums, including The Metropolitan Museum of Art and The Museum of Modern Art in New York City, and the Museum of Contemporary Art in Chicago.

Beginning their work together in 1988, Housen and Yenawine focused on studying the effects of specific treatments (such as VTS) on aesthetic development, and the relation of aesthetic thinking to cognition in general, using Housen's method and theory as the basis of further experimentation. Also influential in the development of VTS is the work of psychologists and educational theorists Rudolf Arnheim (in whose honor the curriculum is named), Jerome Bruner and Lev Vygotsky. Vygotsky's research concerning the relationship of language to thought, and his findings concerning growth that occurs from interaction with others are particularly influential.

Field-tested since 1991 in the United States, Russia, Eastern Europe and Central Asia, VTS is specifically designed to address the concerns and abilities of beginning viewers. It is easy for teachers to learn, inexpensive, and efficiently fits into school schedules. VTS creates partnerships between local schools and art museums, integrating museum visits into classroom studies. (para. 3-5)

Instructor's Procedures:

The instructor will have Activflipchart: Kindergarten-Visual Thinking Skills prepared and displayed on the board as students enter the room. Flipchart will be designed to be interactive, and to enhance lesson objectives.

Materials and Materials Management:

Activflipchart

Activboard hardware and software

Student Procedures:

The student will:

1. Join the class on the story rug at the front of the classroom for better viewing.
2. View and discuss images within the Activflipchart titled Kindergarten-Visual Thinking Skills.
3. Look at an image without talking. Listen to the teacher/facilitator asks certain non-directive questions. ("What's going on in this picture?" "What more can we find?" Examine what they see. Later more specific, probing and directed questions are added.
4. Back up interpretations with evidence; whenever they state an opinion, the teachers ask them, "What do you see that makes you say that?"

5. Every response will be recognized and acknowledged through listening and use of Activboard tools to identify what is mentioned. Listen to teacher paraphrase what is said.
6. Suppose what might have happened just before or just after each narrative artwork.
6. Repeat with as many artworks as time allows for.
7. Closure/Review.

Closure/Review:

During lesson one students viewed and discuss sequencing of simple images in a “timeline” to represent the story of a trip through their town. During lesson two, students will recall and review their learning from day one and build upon that skill with more advanced, abstract thinking skills. By the end of day two students will be probing, reflective interpreters forming personal connections with the narrative artworks in front of them.

Assessment:

Students will meet both learning objectives. The first objective, linking art terms and production with language arts curriculum is accomplished through the sequencing of imagery, personal meaning making, and terms like “beginning, middle, or end of the story”. The final objective is “reading” art just as we read text - using the same kind of processes with different symbols; interpretation and comprehension of pictures telling a story, connecting life experiences to artwork; and retelling important information in own words. This objective is accomplished throughout the participation in Visual Thinking Skills to read narrative artworks.

Assessment Questions:


1. How well did student read visual imagery?
2. How well did student use art terms?

3. How well did student make inferences about what happened just before or just after the narrative imagery? Did students make a personal connection with the narrative artwork and therefore accurately infer possible beginnings and endings of the visual story?

Figure 3.5. Lesson two assessment instrument.

Name: _____		Teacher: _____	
"Visual Thinking Skills"			
	0 pts. each	15 pts. each	25 pts. each
English Language Arts and Visual Art Interdisciplinary Connection	The student did not accurately read the visual clues within the image to tell a story.	The student was able to read the visual clues within the image to tell an accurate story some of the time.	The student was able to accurately read the visual clues within the image to tell a story.
Vocabulary	The student did not use words beginning, middle, or end or before and after while orally explaining the image.	The student used words beginning, middle, or end or before and after 1-2 times while orally explaining the image.	The student used words beginning, middle, or end or before and after at least 3 times while orally explaining the image.
Making Inferences	The student did not accurately read the visual clues within the image to tell what might have come before and after the image.	The student read the visual clues within the image to accurately tell what might have come before and after the image some of the time.	The student read the visual clues within the image to accurately tell what might have come before and after the image.
Grade: _____		Notes: _____	

Figure 3.6. Lesson two Activflipchart.

A painting of a farm scene. In the foreground, a man in a blue shirt and dark pants is walking towards the left, carrying a bundle. A woman in a purple dress is walking towards the right. A dog is running in the middle ground. A white chicken is in the foreground. In the background, there is a barn, a house, and a tornado. The sky is dark and stormy.

Lesson

*Visual
Thinking Skills*

Essential Question(s):
*How is reading a book like
looking at art?*




Figure 3.6. (continued)



John Steuart Curry, 1929

Figure 3.6. (continued)



John Steuart Curry, 1935

Figure 3.6. (continued)



John Steuart Curry, 1930

Figure 3.6. (continued)



John Steuart Curry, 1932

Figure 3.6. (continued)

For Teacher:

John Steuart Curry was born and raised on his family farm in northeast Kansas, and though his life and career would take him to many different locales, his heart and indeed his work never left the land of his birth. Studying art originally at home as a boy in Kansas, and later in Kansas City, Chicago, and briefly in Paris, Curry's enthusiasm for painting developed and grew in the 1910s and 20s. Working originally illustrating magazines and books, his "Baptism in Kansas," painted in 1928 and purchased in 1931 by Gertrude Vanderbilt Whitney gained him not only recognition but the funds to make a career in painting. By this time, he has settled in Connecticut and begun to continue painting in the "regionalist" style, depicting and glorifying images of the United States Midwest. In 1936, he was named the "artist in residence" at the University of Wisconsin, and continued to produce works and gain regional acclaim for the next decade. At the very end of his life the works of his and other Regionalist painters were beginning to recede into obscurity as Abstract and other modern forms of art rose to national prominence. Curry died of a heart attack in 1946, at the age of 49.

Courtesy of:

http://xroads.virginia.edu/~am482_04/am_scene/currybio.html



John Steuart Curry, self-portrait, 1937

Lesson Three.

Title of Lesson: Beverly Buchanan Shacks

Grade Level: K

Designer of Lesson: Tracy V. Kuzminsky

QCC or (Fulton County Schools) Content Standards:

ART MAKING

I. Creates artwork reflecting a range of concepts, ideas, subject matter

C. Creates artwork inspired by natural connections with math, language arts, science, social studies

III. Understands and applies media, techniques, and processes

B. Uses a variety of materials/techniques to create artwork, including but not limited to markers; paints; cut paper/mixed media/collage; clay – pinch construction, textured slab

IV. Self-evaluates art learning and develops habits of excellence

B. Links art terms and production with math, language arts, social studies, science curriculum

READING / WRITING & ART

“Read” art just as we read text - uses the same kind of processes just with different symbols; interpretation (comprehension)-pictures tell a story (characters, events); sequencing-before and after art image; connect life experiences to artwork; retell important information in own words

Lesson Theme: Midtown County Unit 3 Kindergarten: Art Is a Form of Creative

Communication

Objectives:

Student will compare and contrast reading of text to movement through and understanding of a three dimensional artwork. Students will recognize and verbalize what comes first, next, and last during a “trip” through a Beverly Buchanan inspired structure. Students will move a self-portrait paper doll through their structure while verbalizing the beginning, middle and end of a trip through their shack.

Resources:

- Activflipchart titled Kindergarten-Beverly Buchanan
- Self-portrait paper doll

Introduction/Motivation:

Day One:

Students may recall having learned to sequence simple imagery in their regular classroom. It is a skill building toward their ability to read. Students have discovered or revisited the sequencing of imagery during an art lesson at the beginning of this unit. Students have also participated in a Visual Thinking Skills lesson involving more abstract thinking because students were asked to suppose what happened just before and just after a narrative image. This information was not visually there, it was implied within the artworks. Students were required to connect their own life experiences to the image in order to recognize these inferences.

Students will extend their understanding of visual stories to plan and produce three dimensional structures inspired by Beverly Buchanan’s works. Students will view and discuss Beverly Buchanan reproductions. Does her artwork tell a story? What story do you see? They

will identify areas of interest within Buchanan's composition using the pen, highlighter, spotlight, or arrow tools within the Activstudio software. Students will speculate about what might be behind the door of the Buchanan shacks.

Students will then produce a three-dimensional cut paper/mixed media installation. This group created sculpture will be a Buchanan style shack on one side and an open doll house on the other. Day One will focus on the exterior construction of the artwork

Days Two and Three:

Students will view and recall the flipchart from day one. They will review and sequence simple imagery from day one. Students will review Buchanan's structures and continue a group creation of a Buchanan inspired shack. Students will review and speculate about what might be behind the door of the Buchanan shacks and create these items. The inside of the structure will contain many sculpted objects made with various media. Students will create landscaping outside the shack with found, natural objects.

Finally, students will move a self-portrait paper doll through their three dimensional composition. The dolls will move from the door outside the shack, through the door of the shack, and throughout the various rooms in the structure. The doll will pass an installation of found objects landscaping and many sculpted objects along the way. Students will strive for good utilization of space within the composition, use of multiple techniques for manipulating paper, and references to Buchanan's work. As they move "themselves" through the shack they will verbalize their journey through the structure. Where are you beginning your journey? Where will you go next? Where will you end up? Students will connect to their life's experiences to their artwork as they verbalize the visual story of a trip through the Buchanan style shack.

Day Four:

Students will complete this lesson with a writing activity that identifies the beginning, middle and end of their “walk” through their structure.

Content Paper:

Buchanan (2008) shares an artist’s statement:

Remembering the look and feel of structures has been a strong focus in my drawings and sculptures. My vision and interest shifted to the reality of current places and their surrounding landscape. The house and its yard and the road behind and across. Capturing the essence and something of the look and feel of now versus then is not easy. I want to continue to develop this idea now of memory versus reality. I hope that you can help me try.

My work is about, I think, responses. My response to what I’m calling GROUNDINGS. A process of creating objects that relate to but are not reproductions of structures, houses mainly lived in now or abandoned that served as home or an emotional grounding. What’s important for me is the total look of the piece. Each section must relate to the whole structure. There are new groundings, but old ones help me ask questions and see possible stories as answers. Groundings are everywhere. I’m trying to make houses and other objects that show what some of them might look like now and in the past. Southern Vernacular Architecture in Beverly Buchanan’s Art

Southern vernacular architecture is celebrated in Buchanan's drawings and constructions. While the following short descriptions of several types of houses may enrich understanding of her work, keep in mind she creates out of both memory and inspiration of actual shacks. The more abstract renderings tend to focus on the activities within the confines of the shack, such as parties, funerals, games, births, and everyday life. (para. 1)

Instructor’s Procedures:

Day One:

The instructor will have paper boxes, craft sticks, paint, brushes, glue, artwork example, art shirts and various found objects ready for use. The counters and shelves in the rear of the classroom will be cleared for storage of wet structures. Activflipchart will be created to enhance lesson objectives, and will be projected onto the Activboard as the class enters the room.

Day Two:

The instructor will have paper boxes, craft sticks, paint, brushes, glue, artwork example, art shirts and various found objects ready for use. The counters and shelves in the rear of the classroom will be cleared for storage of wet structures. Activflipchart created to enhance lesson objectives will be projected onto the Activboard as the class enters the room.

Day Three:

The instructor will have student artwork, craft sticks, paper, glue, artwork example, art shirts and various natural objects ready for use. The tables will be covered with large sheets of roll paper to prepare for the installation. Activflipchart created to enhance lesson objectives will be projected onto the Activboard as the class enters the room.

Day Four:

The instructor will have student artwork and the writing prompt prepared and ready for student use. Activflipchart will be on the board and ready for review. Word bank will be projected onto the Activboard to assist with the writing prompt.

Materials and Materials Management:

Paper boxes

Craft sticks

Tempera Paint

Brushes

Found objects

Glue

Scissors

Artwork example

Activflipchart

Activboard hardware and software

Student Procedures: The student will:

1. View and discuss Activflipchart titled Kindergarten-Beverly Buchanan.
2. View and discuss imagery within the flipchart of Buchanan's work. Does her artwork tell a story? What story do you see?
3. Identify areas of interest within Buchanan's composition using the various tools within the Activstudio software.
4. Identify what is on and outside the shack, and speculate about what might be behind the door of the shack.
5. View teacher demonstration reviewing various paper sculpting techniques, emphasizing good utilization of space within the composition, and using references to Buchanan's art.
6. Plan and produce a mixed media installation of a Buchanan inspired shack. Take care to use various paper sculpting techniques, use space well, and reference Buchanan's work.
7. Move a self-portrait paper doll through composition. Where are you now? Where were you before? Where are you going? Connect life experiences to artwork and verbalize the visual story you have created to the class.

Closure/Review:

During lesson one students viewed and discussed sequencing of images to represent the story of a trip through their town. During lesson two, students used visual thinking skills to see and communicate the stories within the narrative artworks. During lesson three students will create a Buchanan inspired shack. Students will move a self-portrait paper doll through their composition while verbalizing the story about their structure and their trip through the structure.

Students will close the lesson with a review of our unit, and a writing activity to compliment the lesson objectives.

Assessment:

Students will meet all four learning objectives. The first objective, the creation of an artwork inspired by a connection with language arts, is accomplished through the reading of visual information within Buchanan's work and the creation of an artwork inspired by Buchanan's shacks. The second objective, using a variety of materials/techniques to create artwork, including but not limited to markers; paints; cut paper/mixed media/collage, etc. is accomplished through the creation of a mixed media sculptural installation. The third objective, linking art terms and production with language arts curriculum is accomplished through the sequencing of events as students move through their shacks and verbalize the trip with terms like "beginning, middle, or end of the story". Finally, the fourth objective is "reading" art just as we read text - using the same kind of processes with different symbols; interpretation and comprehension of pictures telling a story connecting life experiences to artwork; and retelling important information in own words. This objective is accomplished through the discussion of Buchanan's work and student's interpretations of the story within the work.


Assessment Questions:

1. How well did student respond to the shacks created by Buchanan? Was the student able to see a story within Buchanan's artwork?
2. How well did student reference the shacks created by Buchanan?
3. How well did student use paper sculpting techniques?
4. How well did student plan and execute a collage with awareness of lesson goals for good utilization of space.


Figure 3.7. Lesson three assessment instrument.

Name: _____		Teacher: _____	
"Buchanan Shack"			
	0 pts. each	15 pts. each	25 pts. each
Reading of Artwork	The student does not make a connection to reading meaning within artworks like the reading of text. Student is not able to see a story within Buchanan's work.	The student is able to see a story within Buchanan's artworks, but is limited to mentioning only what is actually painted on the canvas. No inferences are made.	The student is able to see a story within Buchanan's artwork. Student makes inferences about the story they see based on visual clues within the artwork.
Artist Reference	Students did not create a mixed media sculpture that referenced Buchanan's work in any way.	Students created a mixed media sculpture that referenced Buchanan's work in at least one way.	Students created a mixed media sculpture that referenced Buchanan's work in two or more ways.
Sculpture	The student used only one or two paper sculpting techniques within their shack.	The student used only three paper sculpting techniques within their shack.	The student used four or more paper sculpting techniques within their shack.
Composition	The student left most spaces within the composition empty.	The student utilized space within the composition fairly well. Most of the composition was well planned and most spaces were adequately filled.	The student utilized space within the composition very well. The composition was well planned and spaces were adequately filled.
Grade: _____		Notes: _____	

Figure 3.8. Lesson three Activflipchart.



Lesson
Beverly
Buchanan
Shacks



Essential Question(s):
How is reading a book like looking at an artwork?

Figure 3.8. (continued)

OBJECTIVES:

ART MAKING

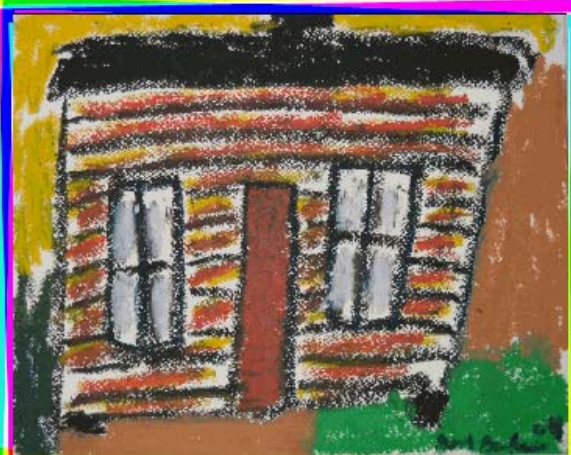
- I. Creates artwork reflecting a range of concepts, ideas, subject matter
 - B. Creates artwork inspired by natural connections with math, language arts, science, social studies
- III. Understands and applies media, techniques, and processes
 - A. Uses a variety of materials/techniques to create artwork, including but not limited to markers; paints; cut paper/mixed media/collage; clay - pinch construction, textured slab
- IV. Self-evaluates art learning and develops habits of excellence
 - B. Links art terms and production with math, language arts, social studies, science curriculum

READING / WRITING & ART

"Read" art just as we read text - uses the same kind of processes just with different symbols; interpretation (comprehension)-pictures tell a story (characters, events); sequencing-before and after art image; connect life experiences to artwork; retell important information in own words

Figure 3.8. (continued)

These are artworks by an artist named Beverly Buchanan. What do you see? Does her artwork tell a story? What story do you see in these artworks?



Awakening (2004)



Sheds and Poppies (2004)

Figure 3.8. (continued)

Q

What story do these artworks tell? What makes you say that? Use the pen to circle the story clues.



Fattail, GA (2004)



Figure in Doorway (2004)

Figure 3.8. (continued)

Q *What story does this artwork tell? What makes you say that? Use the highlighter tool to show the story clues.*



Just For You (2004)

Figure 3.8. (continued)

Q

What story does this artwork tell? What makes you say that? Use the spotlight tool to show the story clues.



Landscape (undated)

Figure 3.8. (continued)

Q *What story does this artwork tell? What makes you say that? Use the arrow tool to show the story clues.*



Rahetom (2004)

Figure 3.8. (continued)

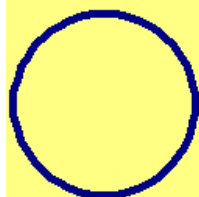
Q *What story does this artwork tell? What makes you say that? Use the hand tool to point to the story clues.*



Old Cabin in Georgia (2003)

Figure 3.8. (continued)

Q *What story does this artwork tell? What makes you say that? Move the circle to show the class the story clues.*



Purple Chicken (2004)

Figure 3.8. (continued)

Q *What story does this artwork tell? What makes you say that? Move the magnifying glass to show the story clues.*



Com Crib (2003)

Figure 3.8. (continued)

Q *What story does this artwork tell? What makes you say that? Use the hand tool to point to the story clues.*



The image shows a hand pointing towards a painting. The painting is a square canvas with a thick, multi-colored border (yellow, green, blue, red, and purple). The artwork itself depicts a house with a red and black striped roof and a red wall. To the right of the house, there are two large, stylized red flowers with yellow centers. The background of the painting is a mix of blue and brown tones. The entire scene is set against a yellow background.

Home (undated)

Figure 3.8. (continued)

Q *What story does this artwork tell? What makes you say that? Use the arrow tool to show the story clues.*

What do you imagine is behind the blue door?

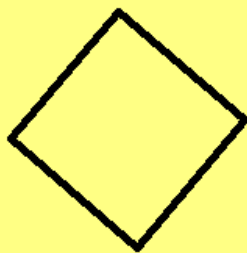


House of Love (2004)

Figure 3.8. (continued)

Q *What story does this artwork tell? What makes you say that? Move the diamond to show the class the story clues.*

What do you imagine is behind the doors?



Autumn (2004)

Figure 3.8. (continued)



How is this artwork different from the others? What story does this artwork tell? What makes you say that? Use any tool you want to help show the class the story clues.

What do you imagine is behind the door of the shack?



Figure 3.8. (continued)



Creative Expression

The Student will:

Day One:

1. View and discuss Activflipchart titled Kindergarten-Beverly Buchanan.
2. Identify the stories within the artworks. Speculate about what might be behind the doors of the Buchanan shack.
3. Plan and produce a mixed media installation of a Buchanan inspired shack.
4. Create the exterior of a Buchanan inspired shack.

Days Two and Three:

5. Review and discuss Activflipchart.
6. Continue the production of both the exterior, interior and landscaping around a Buchanan inspired shack.
7. Use at least 4 paper sculpting techniques, use space well, and reference Buchanan's work.

Day Four:

8. Review and discuss Activflipchart.
9. Connect life experiences to artwork and verbalize the story you have created to the class.
10. Complete writing prompt.

Figure 3.9. Lesson three teacher example, exterior view.



Figure 3.10. Lesson three teacher example, interior view.

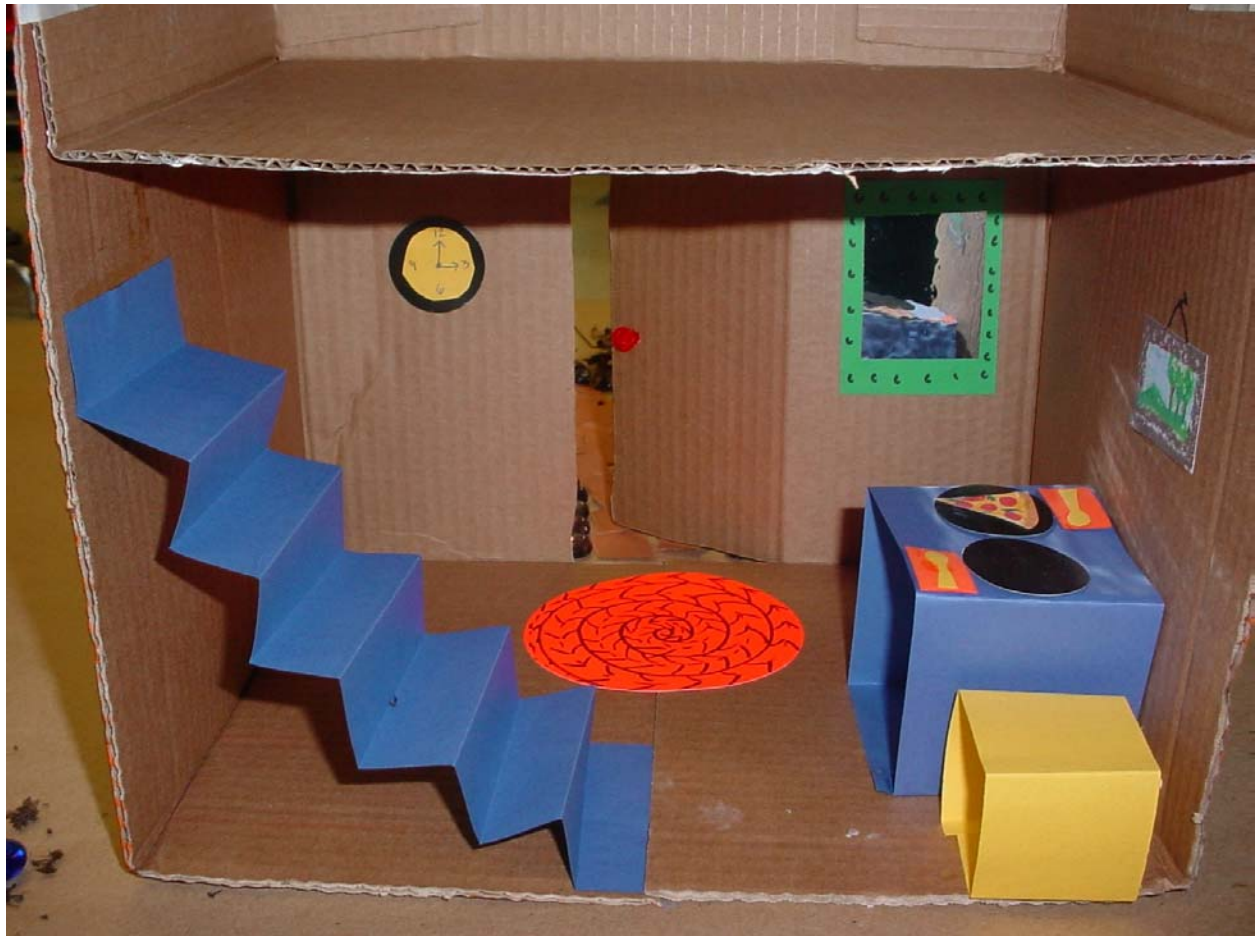


Figure 3.11. Lesson three typical student artwork, exterior view.



Chapter Four: Analysis and Discussion of Lesson Outcomes

Lesson One Assessment Results

Each student was assessed individually with the rubric designed for the lesson. The students scored very well, earning an average of 95.9 out of 100 points for the lesson. Students were scored on four criteria within the rubric. The first assessed the students' ability to create a collage in a left to right sequenced format, representing the beginning, middle, and end of a trip through their community. Every student in the class earned the full 25 points for this segment of the rubric.

The second criterion assessed the students' aptitude in creating a mixed media collage using three or more media (i.e.-cut photos, tissue paper, and cotton). Sixteen students earned the full 25 points, and one student earned 15 points. The average number of points earned for this section of the rubric was 24.4.

The third measure evaluated the students' vocabulary. During the sequencing of imagery, Kindergarten students are expected to recognize the beginning, middle, and end of a visual sequence of events. This skill is demanded of students within the Kindergarten English/Language Arts curriculum and also within the Visual Arts curriculum for the Midtown County school district. The sequencing of imagery and the recognition of the beginning, middle and end of a visual story is a necessary skill building toward reading acquisition. Students were assessed on their use of the terms *beginning*, *middle*, and *end* during the oral presentation of their collage. All students in the class (100%) earned the full twenty five points for vocabulary.

The final area assessed within the rubric was craftsmanship and composition. Students were taught to be careful with their application of glue, overlap at least two of the images within the collage, and leave no empty spaces in the composition. If they accomplished these goals then

students earned the full 25 points for this criterion. Eleven students in the class earned the full 25 points and six students earned 15 points, making the average points earned for this section 21.5.

Lesson Two Assessment Results

Based on the rubric for this lesson the students did exceptionally well. Students read meaning within the narrative artworks. They listened to what others had to say and referred to the images to decide if a valid statement had been made. Although they sometimes would disagree initially about what was happening within a reproduction, the Activstudio software and accompanying tools allowed these areas of contention to be identified. The identification of visual clues within the story allowed for greater understanding and scaffolding of information.

The students were able to accurately read the visual clues within the image to discover the story, earning one-third of the rubric points. The students used appropriate vocabulary while orally explaining the image. The words before, after, beginning, and end were used repeatedly and earned students another third of the rubric points. Finally, students were asked to suppose what happened just prior to the narrative image and also to make a judgment about what they believe happened just following the narrative image. Students' comments were insightful and logical; therefore students earned the final third of the rubric points. All students earned 100 points on the rubric for this lesson.

Lesson Three Assessment Results

Students were placed in small groups according to their seating location. These small groups each created a Beverly Buchanan inspired structures and were assessed as a small group based on the rubric designed for the lesson. The students performed very well, earning an average of 97.1 out of 100 points for the lesson. Students were scored on four criteria within the

rubric. The first assessed the students' abilities to read clues within the Buchanan artworks and make inferences about the story within the artwork. Students were able to view Buchanan's images and conclude that the people who lived in the shacks were probably poor. Students looked at the shack with the purple chicken and concluded that the people who lived there might be farmers. They viewed the Buchanan artwork with the roses on a fence and deduced that the owners of the shack enjoyed gardening in their free time. Their comments were very thoughtful and referenced the imagery very well. All students earned the full 25 points for this segment of the rubric.

The second criterion assessed the students' aptitude in referencing Buchanan's artwork within their shack creation. Various references to her work were seen. Many students created a single door and two simplified windows on their shack. Others used lines to represent boards or shingles. Many students used very bright colors like Beverly Buchanan often did, and some even included specific images found within Buchanan's work, like chickens or rose gardens. All groups earned the full twenty five points for this section of the rubric.

The third measure evaluated the groups' paper sculpting techniques. This skill was taught to this class earlier in the school year and was reviewed during the Buchanan lesson. Students recalled various paper sculpting techniques that could be utilized within the interior spaces of the Buchanan inspired shack. Students reviewed curling, bending of paper, fanfold techniques, fringing, spiral cutting, tab and slot creation, and methods for creating three dimensional shapes. All groups were able to successfully manage this criterion. Their paper sculptures were very thoughtful and creative.

Students were able to suppose what might be behind the doors of the Buchanan shacks and create those items. Groups created tables, chairs with backs, a bed topped with a heart quilt,

and a staircase to allow easy access to the lower level of the space. Interior photographs from group eight are featured. Students in this group curled paper to create a light fixture on the ceiling, they fringed paper to create curtains and a bed skirt, a three dimensional cube functions as a table, and a fanfold is the staircase leading to the bedroom. All students earned the full 25 points for paper sculpting techniques.

The final area assessed within the rubric was composition. Students were taught to plan their space well, adequately fill, and fully utilize the space within their sculpture. If they accomplished these goals the groups earned the full 25 points for this criterion. Five groups in the class earned the full 25 points and two groups earned 15 points, making the average points earned for this section 22.1.

Chapter Five: Measures of Student Interest and Motivation

Observational Recording

One method of data collection for this study was observational recording. Class sessions were video taped to ensure accuracy in recording. Rubrics were designed to measure student interest and motivation for each lesson. Three areas of impact were included: student body language, student response to questioning, and numbers of students volunteering to participate at the Activboard during the lessons.

Body language. Body language is an essential element to consider when measuring motivation and interest. A student leaning forward and looking at the teacher or the Activboard suggests interest. Students turning around during a lesson, looking downward, speaking to other students, or fidgeting suggests the opposite. Before the Activboard technology, I found that Kindergarten students would rarely focus for any length of time on lesson visuals. Now the children are captivated by the interactivity of the board and student involvement keeps students' focus. Because students are able to manipulate information and direct their own discovery they retain their interest on visuals much longer. The following rubric was designed to accurately and consistently measure body language cues throughout the unit of study.

Figure 5.1. Rubric designed to measure motivation and interest through body language cues.

Student: _____
 Lesson: _____

Rubric to Measure Motivation and Interest through Body Language Cues

	A- Student exhibits body language suggesting interest	B- Student exhibits body language suggesting he/she is mostly engaged	C- Student does not exhibit body language suggestive of interest
Participation	Student actively participates in lesson	Student will sometimes participate in lesson	Student does not participate in lesson at all
Facial expression	Student often smiles and shows excitement during lesson	Student occasionally smiles and shows excitement during lesson	Student appears uninterested. Student does not smile or show excitement during lesson
Attention and Focus	Student is very attentive. Student focus is on the Activboard lesson throughout the class session	Student occasionally shifts attention away from the Activboard, but quickly regains focus	Student turns away from the Activboard, looks downward, moves around, and is often restless

Two or more checks in column **A** = Student exhibits body language suggesting interest

Two or more checks in column **B** = Student exhibits body language suggesting he/she is engaged most of the time

Two or more checks in column **C** = student does not exhibit body language suggesting interest

Student names have been changed to protect student confidentiality. Below is an example of a completed rubric measuring body language cues for lesson one.

Figure 5.2. Completed rubric measuring motivation and interest through body language cues.

Student: Jane
Lesson: One

Rubric to Measure Motivation and Interest through Body Language Cues

	A- Student exhibits body language suggesting interest	B- Student exhibits body language suggesting he/she is mostly engaged	C- Student does not exhibit body language suggestive of interest
Participation	Student actively participates in lesson	Student will sometimes participate in lesson	Student does not participate in lesson at all
Facial expression	Student often smiles and shows excitement during lesson	Student occasionally smiles and shows excitement during lesson	Student appears uninterested. Student does not smile or show excitement during lesson
Attention and Focus	Student is very attentive. Student focus is on the Activboard lesson throughout the class session	Student occasionally shifts attention away from the Activboard, but quickly regains focus	Student turns away from the Activboard, looks downward, moves around, and is often restless

Two or more checks in column **A** = Student exhibits body language suggesting interest

Two or more checks in column **B** = Student exhibits body language suggesting he/she is engaged most of the time

Two or more checks in column **C** = student does not exhibit body language suggesting interest

The example assesses Jane's performance for lesson one. Jane sometimes participated in the lesson and occasionally smiled and showed excitement about the lesson's contents. She had difficulty sitting still and often looked away or appeared restless. Jane is a student that has difficulty with her attention and focus during lessons whether or not the Activboard has been used for instruction. This lack of focus may be a lack of interest in the technology, but it may be caused by other factors. According to the rubric, Jane exhibits body language suggesting she is engaged most of the time. Each student in the class was assessed using the same rubric. Based on the rubric criteria, 88% of students were observed exhibiting body language suggestive of attention, motivation, and interest while 12% were engaged most of the time; accounting for 100% of the students being at least very attentive or engaged most of the time throughout lesson one.

During lessons two and three body language was also monitored and scored based on the body language rubric. Throughout the lessons, the average percentage of students exhibiting body language suggestive of interest and motivation was 83%. An additional 14.8% of the students were interested most of the time based on body language cues, accounting for 97.8% of the students over the course of all three lessons. This is a very high percentage and a noteworthy gauge of student interest during the unit.

Response to teacher questioning. Student responses to teacher questioning are also a sign of student interest and motivation. Students must be actively listening in order to react to the information within the lesson. There are many different responses to questioning that are recognized within this study. Students may raise a hand to answer, verbally respond, or students

may nod or shake their head. All of these reactions suggest a student engaged in the learning process. The rubric below was designed to accurately and consistently measure student responses during the study.

Figure 5.3. Rubric designed to measure motivation through responses to teacher questioning.

Student: _____			
Lesson: _____			
Rubric to Measure Motivation and Interest through Response to Teacher Questioning			
	A -Three or more times during Activboard use	B -One to three times during Activboard use	C -Not at all during Activboard use
Student raises hand			
Student verbally responds			
Student nods or shakes head			
<p>Two or more checks in column A = Student responds to teacher questioning, suggesting motivation and interest</p> <p>Two checks in column A + one check in column B = Student responds to questioning most of the time suggesting he/she is engaged most of the time</p> <p>Two or more checks in column C = student does not respond to teacher questioning suggesting a lack of motivation and interest</p>			

As with the previous rubric, student names have been changed to protect confidentiality. Below is an example of a completed rubric measuring student response to teacher questioning during lesson two.

Figure 5.4. Completed rubric measuring responses to teacher questioning.

Student: <u>Anderson</u>			
Lesson: <u>Two</u>			
Rubric to Measure Motivation and Interest through Response to Teacher Questioning			
	A-Three or more times during Activboard use	B-One to three times during Activboard use	C-Not at all during Activboard use
Student raises hand	✓		
Student verbally responds	✓		
Student nods or shakes head	✓		
<p>Two or more checks in column A = Student responds to teacher questioning, suggesting motivation and interest</p> <p>Two checks in column A + one check in column B = Student responds to questioning most of the time suggesting he/she is engaged most of the time</p> <p>Two or more checks in column C = student does not respond to teacher questioning suggesting a lack of motivation and interest</p>			

The example assesses Anderson's responses to teacher questioning during lesson two. Anderson was very eager to respond during lesson two via all methods of measured criteria. Anderson verbally responded many times throughout the class. He frequently nodded in agreement with me, or in agreement with other students' comments. Anderson raised a hand in order to participate at every opportunity. Each student in the class was assessed for each lesson using the same rubric. During lesson one, 88% of students always responded to teacher based on the rubric criteria. An additional 12% of students responded to teacher questioning most of the

time, accounting for 100% of students responding to teacher questioning all or most of the time during the lesson.

During lessons two and three responses to teacher questioning were also measured. Throughout the lessons, the average percentage of students who always responded to teacher questioning was 91.6%. An additional 6.1 percent of students reacted to teacher questioning most of the time, for a total of 97.7% of students reacting to teacher questioning all or most of the time over the course of all three lessons. Although student responses to teacher questioning are usually very good even without Activboard use, this is a larger percentage than usual and an indicator of even higher student motivation.

Student desire to volunteer. The most significant indicator for student motivation and interest during Activboard centered instruction is how often students wish to interact with the technology. Burton (2001) states that educators believe students are often eager to participate in art production; however, it is sometimes difficult to engage students through discussions of art criticism and art history. My hope in conducting this study was that if the Activboard was engaging, then looking at and talking about art would become more interactive. The following rubric was designed to accurately and consistently measure this aspect of the study.

Figure 5.5. Rubric designed to measure student desire to volunteer at the Activboard.

Student: _____
 Lesson: _____

Rubric to Measure Motivation through Students Desire to Volunteer at the Activboard

	A- Every time there is a need for a volunteer	B- More than 50% of the time there is a need for a volunteer	C- Not at all during class session
Student raises hand or verbally expresses a desire to participate at the Activboard			

One check in column **A** =
 Student is motivated to interact with the Activboard

One check in column **B** =
 Student is motivated most of the time to interact with the Activboard

One check in column **C** =
 Student is not motivated to interact with the Activboard

Based on the above rubric all lessons within the unit indicate that students are motivated and eager to interact with this technology. The percentage of students in the study who always volunteered to come to the board during Activboard instruction was 93.8%, and an additional 2% of students volunteered to participate most of the time throughout the unit of instruction. Almost all of the students (95.8) volunteered to come to the Activboard to respond every time or almost every time that I asked them.

Figure 5.6. Graph illustrating levels of student motivation and interest for lesson one based on measured criteria.

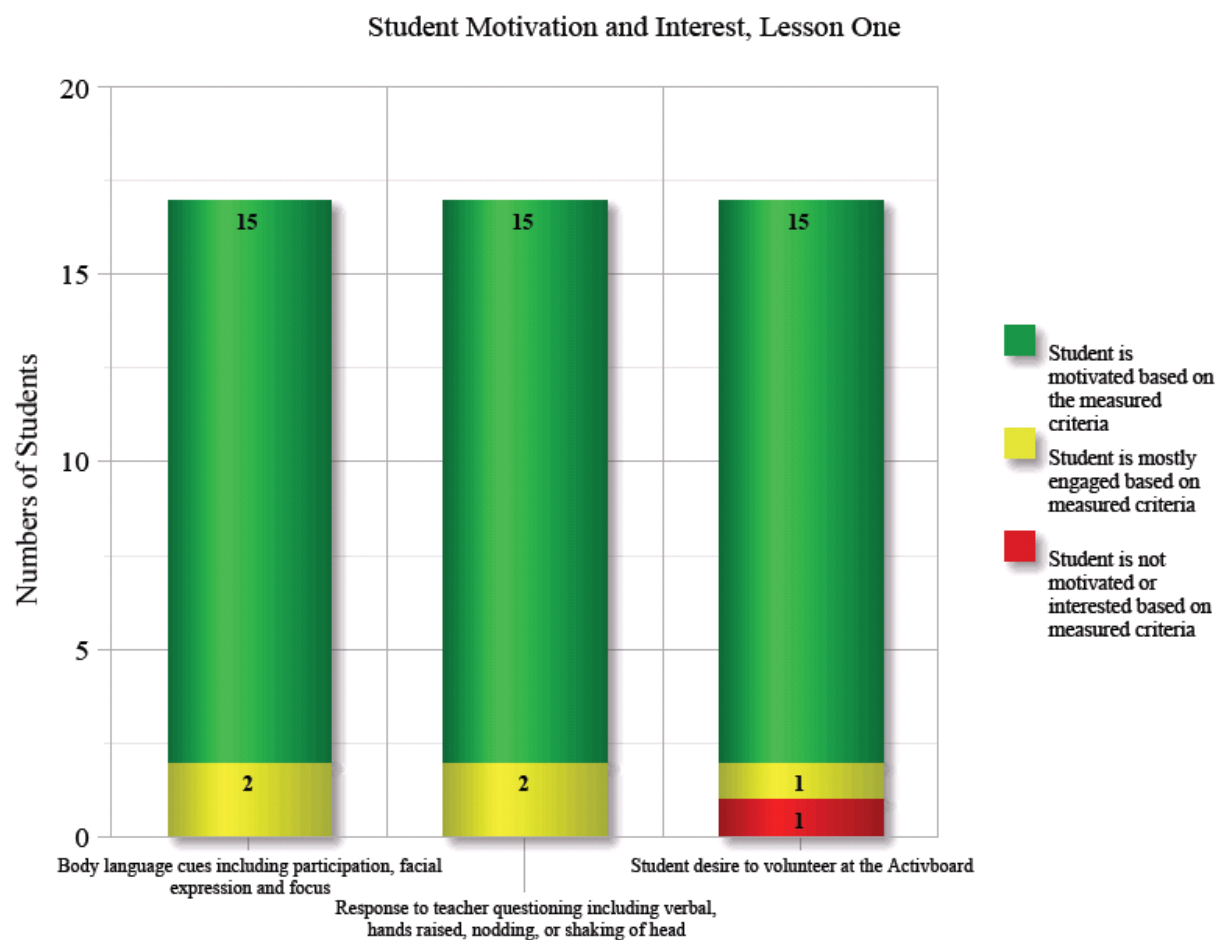
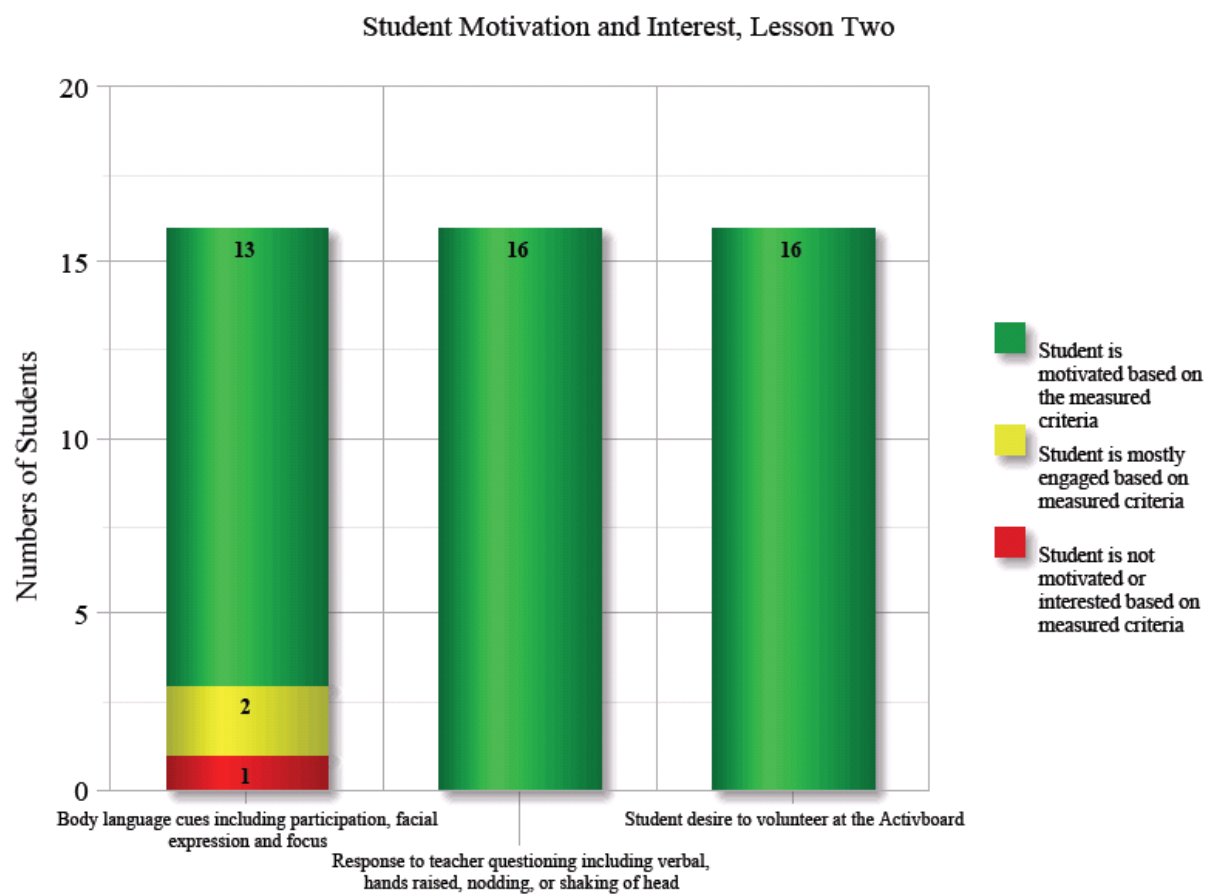
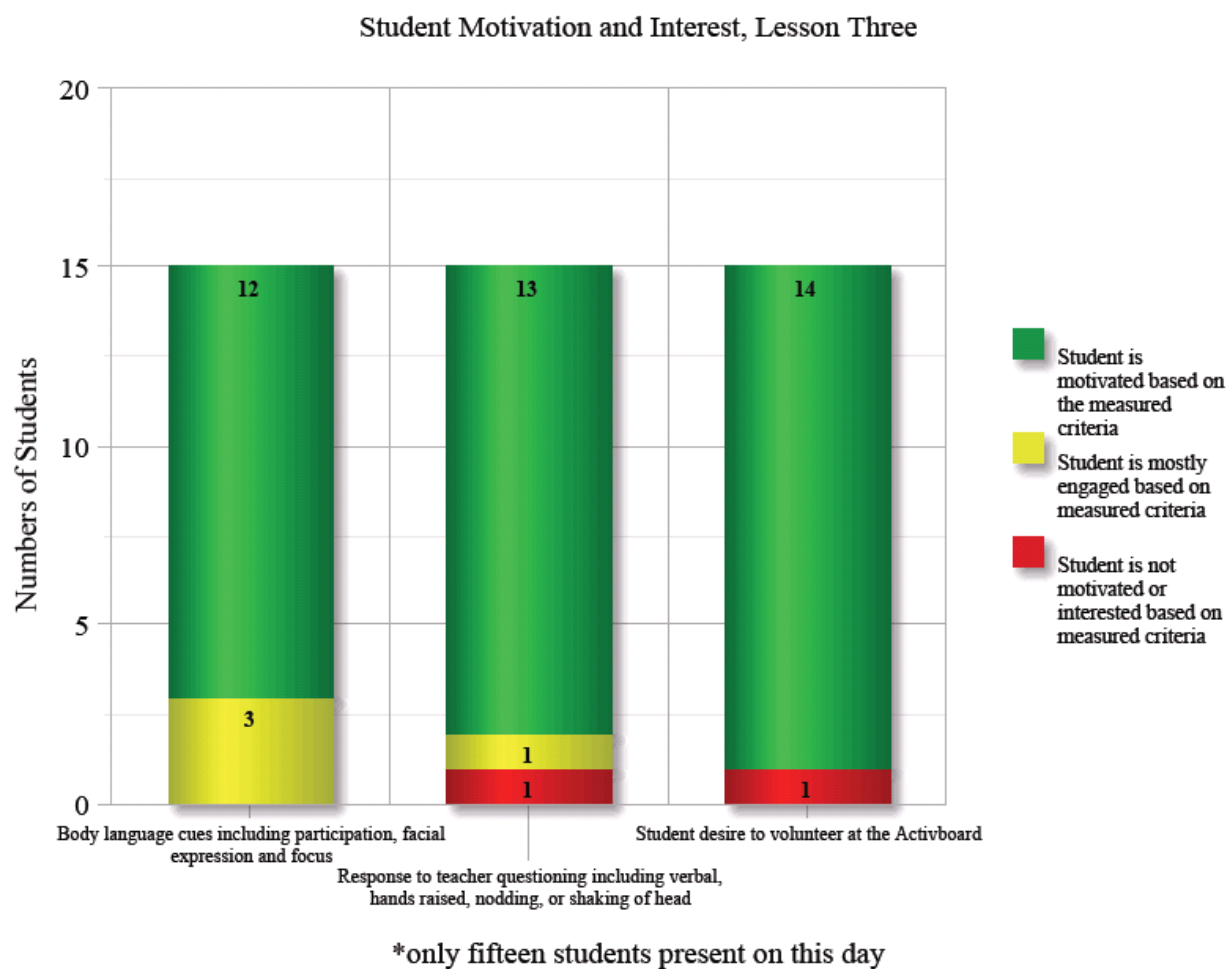


Figure 5.7. Graph illustrating levels of student motivation and interest for lesson two based on measured criteria.



*only sixteen students present on this day

Figure 5.8. Graph illustrating levels of student motivation and interest for lesson three based on measured criteria.



Unanticipated Areas of Impact

Student reactions throughout the unit indicated great fascination and interest in using the Activboard hardware and software. The students were eager to have a chance to manipulate and identify elements within images using the Activboard. This was evident in numerous ways including students' comments during the lessons. During lesson one, I heard comments like "Does everyone get a turn?", "Aww...I wanted to do it.", or "Is she going to get to do them all?" Each time students were expressing their desire to be the one holding the pen tool.

At times, it was not what was said but what was seen in the video recording that was illuminating. The students were observed laughing and expressing enjoyment at the lesson contents. Students expressed wonder at how their favorite community restaurant was on the Activboard, and even more awe at how we were able to manipulate the image. Students were excited to view my example self-portrait, digitally scanned into the flipchart. They were very pleased to move "me" through the places in our town while verbalizing the beginning, middle and end of the trip. Students coming to the board were recorded smiling as the pen tool was handed to them for their use. When a student left their spot to use the restroom, the others would quickly fill the space closer to the Activboard. These were small, subtle, and unexpected indicators of gratification that students expressed through the use of this technology.

During lesson two, students were expected to participate in Visual Thinking Skills for the duration of a class. Each Kindergarten class lasts for 45 minutes. Students did exceptionally well and met the primary lesson objectives as evidenced by the assessment outcomes. The graph for lesson two also confirms high levels of interest in the lesson. One negative in the lesson planning was the anticipated length of the activity. An average attention span is three to five minutes per year of a child's age (KG Investments, 2008). Therefore a child at age five can be

expected to concentrate on an activity for fifteen to twenty-five minutes, and a six year old can focus for eighteen to thirty minutes. Approximately thirty to thirty five minutes into this lesson, many students did begin to be physically restless. This explains the lower percentages in the body language measurement for lesson two, and lowers the overall score for body language for the unit. Interestingly, despite the focus limitations of the average five to six year old, three students stayed with me after the class had been dismissed. They remained because they were so eager to speak longer about the stories they saw within the artworks.

Student Interviews

The students were interviewed one morning in a quiet corner in the back of the classroom. Students were asked individually if they would mind answering a few questions about the Activboard. I also inquired if they would mind if I used my audio recorder to tape their voice. All students agreed to answer questions; however one student did not wish to be recorded during the interview.

The first interview question was *Do you enjoy using the Activboard to learn about art? Why or why not?* Some students answered “Yeah”, some students nodded, and others answered “Yes”. All students answered affirmatively. Their reasons for liking the Activboard to learn about art were varied. One student could not pinpoint the reason; he just knew he liked it. Others enjoyed “moving stuff around”, “getting to use the little pen”, “using the arrows to point to something”, or “changing the pen [color] to pink, red and blue”. Students overwhelmingly named the interactive features of the board as the reasons for taking pleasure the use of this technology within the art room.

The second interview question was *What is your favorite or least favorite part about using the Activboard?* Students identified a range of favorite activities using this technology.

Their rationale included “using the magic finger to point at something”, “moving little Mrs. K through the town”, “putting [pictures] in order”, or simply “circling things with the pen”. None of the students disliked anything about the Activboard, however there was one student who frowned and said, “I wish I had more turns.”

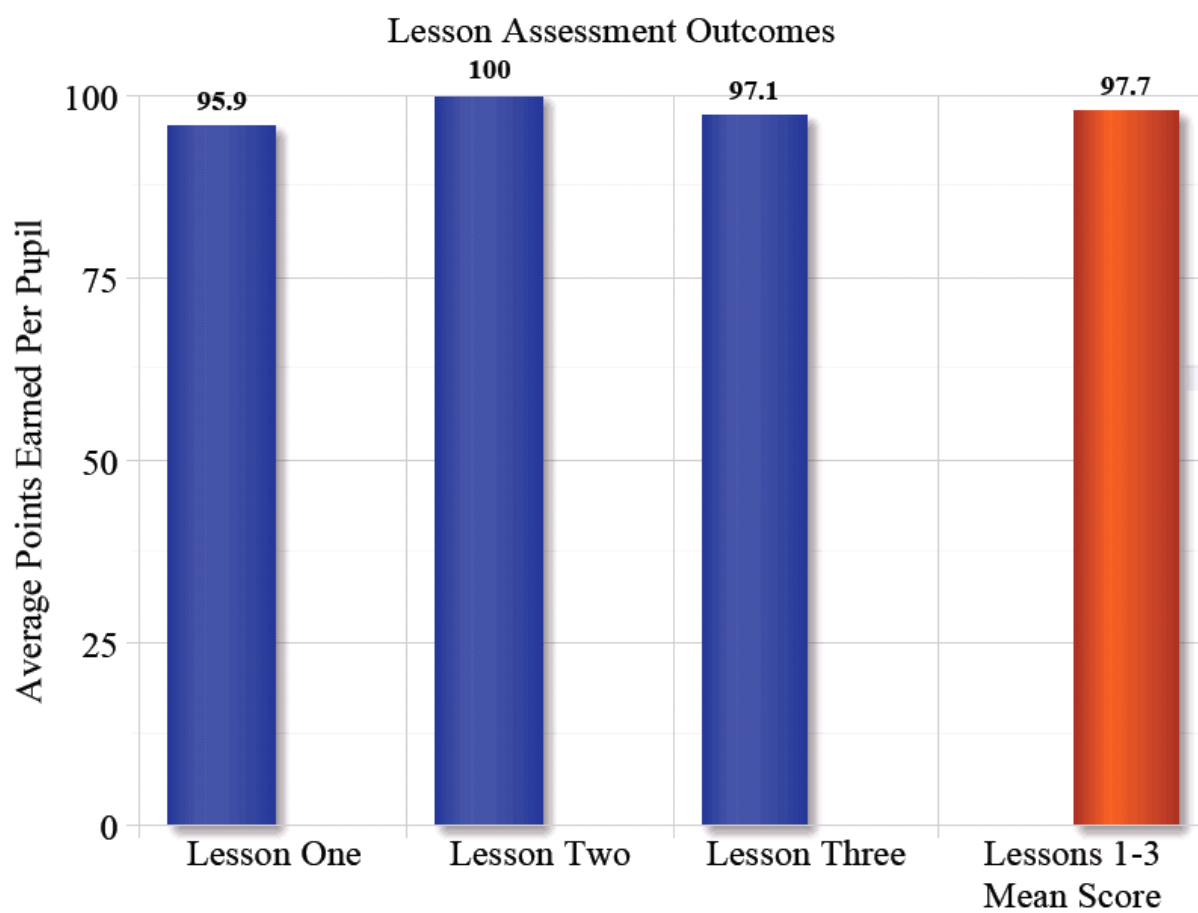
The final interview question was *Do you think you like art class more or less because of the Activboard? Why?* Three of the students countered with unclear replies. One said, “I just like art.” Another answered, “I like the board and I like making art.” A third answered “I like the board, but I like to paint and draw too.” All fourteen remaining students responded that they liked art class more because of the Activboard. These students backed up their reply with an explanation. One student said “It makes the beginning part more fun.” Other students answered, “I like it because the board tells you a story” and “I like it because it helps you do art”. Many students referred once again back to the interactivity of the hardware and the software. Eight students used the word “fun” to describe Activboard use.

Gender did not affect student interest. Both boys and girls were equally motivated by the technology and the opportunity to interact with the pen tool. One interview subject responded in especially amusing ways. I asked her why she likes using the Activboard. She responded, “Because I don’t have one at home.” I inquired what her favorite part about using the Activboard was and she replied, “That I get a lot of turns!” This student is a perfect example of the impact this technology has on student motivation. All the students in this study indicate a very high level of satisfaction with this technology and find it very easy to use. Students do not have one at home, and enjoy the use of the Activboard within the classroom. They show disappointment if they miss a chance at manipulating information on the board, and they exhibit pleasure at the occasions when they do “get a turn”.

Unit Assessment Outcomes

The assessment outcomes at the conclusion of each lesson indicate high levels of student achievement. This statement is supported by the percentage of students meeting the objectives for each lesson. Lesson one assessment results confirm high levels of achievement based on the rubric design for the lesson. The students earned an average of 95.9 out of 100 points. Lesson two, Visual Thinking Skills, also resulted in a superior outcome. All students earned the full 100 points for the lesson. Lesson three assessment outcomes establish the trend for high performance within this unit. The students earned an average of 97.1 out of 100 points for the lesson featuring artist Beverly Buchanan. Gender did not affect student achievement. Male and female students performed equally well. The following graph illustrates the average points earned per pupil, per lesson and the lesson average scores.

Figure 5.9. Graph illustrating lesson assessment outcomes and average score throughout the unit of study.



Chapter 6: Conclusions

Increased use of technology within schools will help to create change in public perceptions. As more students grow and are educated through technology, the use of this medium will become a standard. The result will be future generations having less fear, a greater understanding of and dependency upon computer hardware, the peripherals and available software.

This study followed the design and documentation of a Kindergarten visual arts unit using the Activboard. Although students are often eager to participate in art production it can be difficult to engage them in discussions of art criticism and art history. The Activboard facilitates a highly interactive study of these areas of the art curriculum and the study has shown a positive impact on students' achievement, motivation, and interest throughout the unit.

The average score for the students over the duration of the unit was 97.7 out of 100 total points. The high level of achievement attained by the students is facilitated by Activboard use within the classroom. Student interviews reinforce this conclusion. Students overwhelmingly support the inclusion of Activboard instruction due to the interactive nature of this technology and the enjoyment it provides. One student reported, "The [Activboard] is fun to use. I like when we have to push on it and figure out stuff." Another student stated, "I like it because it plays games and you get to use the little pen." The Activboard makes learning more fun. Because students are entertained, focus is improved, and subsequently student achievement is positively affected.

The measures for student motivation and interest substantiate that children are eager to view, manipulate, and mark upon the flipcharts within the Activstudio software. Student body language, student responses during Activboard centered lessons, and desire to interact with

Activboard technology were assessed and indicated very high student interest and motivation.

The degree of motivation is noticeably greater than I have witnessed during instruction without the Activboard. The board offers greater attention to the task and results in greater student academic performance.

Recommendations for Further Research

1. The student group used for this study was a small group of only seventeen participants. In order to allow for greater generalization of the study findings, it would be useful to replicate and document this study design with a larger student group.
2. This study did not employ the use of a control group. An experimental study could be designed using both a control group of students who did not receive Activboard centered instruction, and another group that did receive Activboard centered instruction. This study design would allow for comparison. Motivation, student achievement, and interest could be compared and contrasted between the two groups.
3. The motivation and achievement of the student group was not recorded prior to the introduction of Activboard centered instruction. It would be useful to have data to document the differences in motivation and achievement of the student group both before and after the introduction of this technology.
4. The data for student achievement and motivation during this study may be due to the introduction of Activboard technology. The study could be replicated with a Kindergarten group from a lower socioeconomic background. This would aid in determining if student achievement and motivation are similar in lower socio-economic environments.
5. The student group used for this study was a small group of elementary school participants. In order to allow for greater generalization of the study findings, it would be useful to replicate and document this study design within a middle school visual arts curriculum. It would be beneficial to determine if and how student motivation, achievement, and interest are impacted at this level.
6. The student group used for this study was a small group of elementary school participants. In

order to allow for greater generalization of the study findings, it would be useful to replicate and document this study design within a high school visual arts curriculum. It would be beneficial to determine if and how student motivation, achievement, and interest are impacted at this level.

References

- Bell, M. A. (2002). *Why use an interactive whiteboard?* Retrieved April, 1, 2006, from <http://teachers.net/gazette/JAN02/mabell.html>
- Brown, P. (1989). Art and the information revolution. *Leonardo*, Supplemental Issue (2), 63-65.
- Buchanan, B. (2008). *Artist's statement*. Retrieved February 18, 2008, from <http://www.beverlybuchanan.com/index.html>
- Burton, D. (2001). How do we teach? Results of a national survey of instruction in secondary art education. *Studies in Art Education*, 42(2), 131-145.
- Carpenter, B. S. & Taylor, P. G. (2003). Racing thoughts: Altering our ways of knowing and being in art through computer hypertext. *Studies in Art Education*, 45(1), 40-50.
- Cobitz, C. I., Byrd, D., & Cockman, D. A. (2002). *Active classrooms*. Retrieved April 1, 2006, from <http://www.cobitz.com/active/index.htm>
- Delacruz, E. (2004). Teachers' working conditions and the unmet promise of technology. *Studies in Art Education*, 46(1), 6-20.
- Delahunt, M. (2008). *Collage*. Retrieved February 18, 2008, from <http://www.artlex.com/ArtLex/c/collage.html>
- Gatlin, M. (2004). *Interactive whiteboard system creates 'active classrooms' for rural georgia school system*. Retrieved April 1, 2006, from <http://www.thejournal.com/the/printarticle/?id=16614>
- Goodman, C. (1990). The digital revolution: Art in the computer age. *Art Journal*,

- 49(3), 248-253.
- Hickman, C. (1990). Signal to noise: A computer - based artist's book. *Art Journal*, 49(3), 278-282.
- Hubbard, G. (1995). Electronic artstrands: computer delivery of art instruction. *Art Education*, 48(2), 44-51.
- Humphries, H. (2003). A philosophical inquiry into the nature of computer art. *Journal of Aesthetic Education*, 37(1), 13-31.
- Johnson, M. (1997). Orientations to curriculum in computer art education. *Art Education*, 50(3), 43-47.
- KG Investments, LLC. (2008). *Attention deficit disorder*. Retrieved February 18, 2008, from <http://www.kidsgrowth.com/resources/articledetail.cfm?id=1007>
- Krug, D. H. (2004). Leadership and research: Reimagining electronic technologies for supporting learning through the visual arts. *Studies in Art Education*, 46(1), 3-5.
- Kundu, R. & Bain, C. (2006). Webquests: Utilizing technology in a constructivist manner to facilitate meaningful preservice learning. *Art Education*, 59(2), 6-11.
- Levy, P. (2002). *Interactive whiteboards in learning and teaching in two Sheffield schools: A developmental study*. Retrieved April 1, 2006, from <http://dis.shef.ac.uk/eirg/projects/wboards.htm>
- Mulberg, C. (1993). 'Just don't ask me to define it': Perceptions of technology in the national curriculum. *Journal of Design History*, 6(4), 301-305.
- Oppenheimer, T. (1997). The computer delusion. *The Atlantic Monthly*, 280, 45-62.
- Pearson, J. (1988). The computer: Liberator or jailer of the creative spirit.

Leonardo, Supplemental Issue (1), 73-80.

Ray, D. (2007). Classrooms of the future. *Page One*, September/October issue, 18-31.

Rosing, L. (1971). Art and art education in a world in revolution. *Art Journal*, 30(2), 166-167.

Solvie, P. (2004). *The digital whiteboard: A tool in early literacy instruction*. Retrieved April 1, 2006, from http://www.readingonline.org/electronic/rt/2-04_Column/index.html

Smithsonian National Museum of American History (n.d.). *Computer History Collection*. Retrieved March 2, 2008, from <http://americanhistory.si.edu/collections/comphist/>

The City of Roswell. (2008). *Demographics*. Retrieved February 18, 2008, from <http://www.roswellgov.com/index.php/p/69/t/Demographics>

Thomas, R. M. (2005). *Teachers doing research*. Santa Barbara, California: Pearson Education, Inc.

Vue. (2008). *Visual thinking skills*. Retrieved February 18, 2008, from http://www.vue.org/what_overview.html

APPENDICES

Appendix A: Student Interview Questions

1. Do you enjoy using the Activboard to learn about art? Why or why not?
2. What is your favorite/least favorite part about using the Activboard?
3. Do you think you like art class more or less because of the Activboard? Why do you like art class more/less when the Activboard is used?

Appendix B: Parental Consent Form

Georgia State University
Department of Art and Design, Art Education
Parental Permission Form

Title: Interactive Whiteboard Technology within the Kindergarten Visual Arts Classroom

Principal Investigator: Melody Milbrandt, Georgia State University Professor

Student Principal Investigator: Tracy V. Kuzminsky, Art Teacher, Midtown Elementary School

I. Purpose:

Your child is invited to participate in a research study. The purpose of the study is to investigate ways in which student motivation, achievement, and interest are impacted through the design and implementation of a Kindergarten visual art curriculum presented with an Activboard.

Participants are invited because they are students in Mr. Wall's Kindergarten homeroom and attend art class with Mrs. Kuzminsky. A total of seventeen participants will be recruited for this study. Participation will require regular art class time plus an additional fifteen minutes of time to join in an interview session with Mrs. Kuzminsky. The study will take place beginning in late January and concluding in early March of 2008.

II. Procedures:

If you decide to allow your child to participate, study participants will be the subject of the data collection and interviews. Ways in which the inclusion of an Activboard will result in strong student motivation, interest, and achievement within the visual arts classroom will be documented. Permission is being sought to allow the use of collected data for the purposes of research. Permission is not being sought for students to participate in regularly scheduled art class activities. Students will participate in regularly scheduled classes regardless of participation in this research study.

The first method of data collection for this study will be observational recording. Rubrics to measure student interest, motivation and achievement will be designed and utilized for each lesson beginning in January and concluding in early March of 2008. Students will not be required to interact with the teacher or the students in any way other than participating in regular art class activities. Students will be unaware of the data collection. Data from these observational scales will be compiled and graphed.

Students will also be videotaped during regular classroom sessions to gauge their levels of interest and motivation. Data collected from the tapes will be analyzed. Students' motivation and level of interest observed in the videotape will be recorded on a checklist measuring indicators for motivation and indicators for interest. Unanticipated areas of impact relating to motivation and interest, either positive or negative will also be noted.

Finally, students will participate in one interview with Mrs. Kuzminsky, lasting approximately ten minutes. The interviews will utilize a loose question strategy. A loose question strategy employs the use of broader, general questions. A loose question strategy is a good method for revealing varied responses and interpretations and may result in unexpected but valuable insight. Students will be questioned regarding their feelings about the use of the Activboard. General interview questions to begin the documentation will be:

1. Do you enjoy using the Activboard to learn about art? Why or why not?
2. What is your favorite/least favorite part about using the Activboard?
3. Do you think you like art class more or less because of the Activboard? Why?

Student responses will be audio recorded to allow for accurate transcription by Mrs. Kuzminsky at a later time.

III. Risks:

In this study, participants will not have any more risks than they would in a normal day of life.

IV. Benefits:

Participation in this study may not benefit your child directly. Overall, we hope to gain information about the ways in which the inclusion of an Activboard will result in strong student motivation, interest, and achievement for students in a visual arts classroom. Study results may provide insight for future students and educators.

V. Voluntary Participation and Withdrawal:

Participation in research is voluntary. Students do not have to be in this study. If you decide to allow your child to be in the study and change your mind, you have the right to cease their participation at any time. Your child may skip questions or you may ask for your child to stop participating at any time.

VI. Confidentiality:

Participants' records will be kept private to the extent allowed by law. Student codes rather than names will be used on study records. Only Mrs. Kuzminsky will have access to the information provided. Hard copies of data, video, and audio tapes will be stored in locked cabinet. All hard copies will be destroyed within one year of the study's completion. Compiled, graphed information will be stored on a password- and firewall-protected computer.

Study participants' names and other facts that might point to him/her will not appear when this study is presented or published. The findings will be summarized and reported in group form. Participants will not be identified personally.

VII. Contact Persons:

Call Melody Milbrandt at Georgia State School of Art and Design at (404) 413-5235 if you have questions about this study. You may also contact Tracy V. Kuzminsky at (770) 643-3310 or e-mail to kuzminskyt@fultonschools.org if you have additional questions. If you have questions or concerns about your child's rights as a participant in this research study, you may contact Susan Vogtner in the Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu.

VIII. Copy of Consent Form to Subject:

You will receive a copy of this consent form to keep.

If you are willing to volunteer your child for this research, please sign below.

Parent or Guardian of Participant

Date

Principal Investigator or Researcher Obtaining Consent

Date

Appendix C: Student Assent Guide

***“For children under 6:** No assent is required. Provide to the IRB information about how you will ensure that the children want to participate and are not getting upset.*

***For children Age 6-10:** Verbal assent must be obtained and documented by PI. Submit an assent script to the IRB for review.”*

Participants in the study fall within both age categories above, therefore the participants will be informed of the video and audio tape sessions. They will be asked before the taping if they would like to be featured on a video of our art class. If they do not wish to be video taped, they will not be featured in the recording.

During the interview session participants will be asked if they would like to answer a few questions about the Activboard. If they verbally agree the interview will proceed. If they wish not to be interviewed or they communicate through verbal or body language that they wish to discontinue the interview, the interview will be ceased. They will also be asked prior to the interview if their voices can be audio recorded. If they verbally agree the audio recording will proceed. If they wish not to be recorded or they communicate through verbal or body language that they wish to discontinue the recording, the taping will be stopped.

