

Running Head: ART INTEGRATION'S EFFECT ON STUDENT WRITING

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Final research project

A Study of Art Integration's Effect on Student Writing

by

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ABSTRACT

One of the most significant challenges students face when then they write is conveying their ideas clearly, in depth, and with a richness of detail. This study examines the effect of an integrated art activity on the clarity, depth, and detail on tenth grade students' writing. Through a review of the literature and a classroom-based qualitative research study, the researcher found evidence to support the effectiveness of an integrated drawing activity at improving the clarity, depth and detail of student writing. Two groups of students responded to the same writing prompt twice; the focus group participated in an integrated drawing activity before the second writing session and the control group did not. The average scores for the focus group improved in the second session and the average scores from the control group declined suggesting the writing activity's effectiveness. The results from this study could be used to pilot more in-depth research and to implement drawing activities for use as a writing tool by teachers of all disciplines and at all grade levels.

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CHAPTER ONE: THE PROBLEM AND BACKGROUND

Literacy is essential in the 21st century economy and it is one of the fundamental skills that teachers consistently struggle to teach their students. Traditionally, students who were not able to become proficient at writing were allowed to fall through the cracks of the school system by graduating with inaccurately inflated grades or dropping out altogether. Word-based strategies were relied on to help students develop and practice their skills. For many students, these strategies are ineffective at improving the clarity, depth, and detail of their writing either because students avoid using them when they don't have to, and struggle to record their ideas on them. This study will examine the effect that a visual-art based activity will have on students' ability to improve the clarity, depth, and detail of their writing. It draws on the researcher's background and experience as a credentialed Art, English, and ESL teacher instructing populations who were at-risk of failing and/or dropping out of school in Toronto and Los Angeles.

Purpose

My interest in conducting this study began when I taught ninth grade English at a low-performing high school in Los Angeles. Many of my students were academically unmotivated. It was a struggle to engage them in the writing process and to improve their writing skills. Throughout the year, I attended a credential program for teaching English language learners, and numerous in-service workshops led by the school administration, off campus English coaches, and the school's literacy coach. All the strategies used exclusively language-based activities such as speaking or writing. I found them to be a challenge to implement in a way that was engaging for my students and was effective at improving their writing.

This study investigated the following question: Can visualizing and expressing their ideas in a visual art medium help students to improve the clarity, depth, and detail of their writing? A secondary question was: Will it have an effect on students' conception of their abilities, and engagement in writing? This study tested an instructional strategy that can be integrated into either an Art or English curriculum to help students improve their writing skills. To date, art integration studies have concentrated on students in kindergarten to eighth grade. Very few have focused on secondary students. Although some students have become proficient and advanced level writers at this stage, many still struggle to write and are stuck at the elementary or middle school level. It is a challenge to find engaging, effective ways to help high school students to overcome many years of negative experiences and change their attitudes toward writing. The first step is to improve students' inner belief in their ability to write, and their skills. This led the researcher to investigate alternate methods for engaging students in the writing process and improving the clarity, depth, and detail of their writing.

This study involved two groups of participants, a focus group and a control group. Both groups wrote a personal response to the prompt "Home is not where you live but where they understand you". Both groups filled out a survey after the writing assignment asking about their perceptions of themselves as writers and their attitudes toward writing. The focus group completed an art assignment with the same theme as the writing prompt; the control group did not. The groups' first and second session samples and surveys were analyzed for changes in their attitudes toward writing, and the clarity, depth, and detail of their compositions.

My goals are first, to improve my ability to engage students in the writing process and improve their ability to express their ideas clearly. Second, I aim to better understand the effect of integrating art into writing assignments on high school student proficiency. Many high school students are still writing at elementary grade levels despite having been promoted to secondary school. These students struggle to be engaged because their history of many years of failure and frustration has held them back from success and eroded their confidence. Third, I would like to help other teachers to implement effective strategies into their practice to do the same. Most of the literature to date on arts integration has predominantly studied its effects on elementary and middle school students and tracked the progress of one group without a second group to compare the study's data with. In this study, the effect of an integrated art activity's effect on the clarity, depth and detail of student writing will be examined comparing two sets of written compositions from two groups of students. One group will participate in an integrated art activity, the other will not.

Conceptual Framework

Personal Interest

My interest in finding effective art-based strategies to improve student literacy began in 2008-2009 when I taught English to low-performing students in California's high accountability testing climate (Andrzejczak, Trainin, & Poldberg, 2005). In 2007-2008, which was my eighth year of teaching, I taught Art at North Albion Collegiate Institute in Toronto, Canada. I integrated writing assignments into my lessons that were tied to the art projects the students created. The clarity, depth, and detail of their work was uncharacteristically strong. The following year, I taught ninth grade English at

Panorama High School in Los Angeles, CA. Most of the strategies I was taught in professional development courses and workshops on improving student literacy in Los Angeles had limited effectiveness in my classroom and fostered limited intrinsic motivation. None of the strategies included arts integration, or other kinesthetic experiential learning strategies. All of them favored spoken and written word-based activities and remedial exercises. I struggled to effectively integrate them into my practice.

I often observed my colleagues during my non-instructional period. This helped me acclimate to teaching in California's unfamiliar, high rigor curriculum and learn how to engage a population of students whose culture I had no prior experience with. The colleague who stood out with the most effective instructional strategies and the least classroom management issues rarely used the word-based strategies we were taught in our professional development workshops. Her most successful and commonly used method was to integrate images into her lessons, writing prompts and assignments. This, combined with my success integrating writing in my twelfth grade Art class in Toronto piqued my curiosity about art-based methodologies that could help students improve their writing skills and led to my interest in conducting this study.

Reason for Research

This research project's rationale is rooted in the essential need for proficiency in writing in the 21st century. The decline of the manufacturing sector in North America has all but eliminated most jobs in the U.S. and Canada that can provide middle class incomes, stability, and benefits and concurrently do not require a college level education and literacy skills. Additionally, an ever-growing population of students in North

America does not speak English as a first language, and/or may be from cultures that favor intelligences other than literacy as essential for success. This can impede their school readiness and the ease with which they can learn within North America's educational system (Gladwell, 2008). Additionally, special needs students who might have once been sidelined into low-rigor vocational programs or remedial classes are now integrated into mainstream classrooms and expected to demonstrate proficiency on the same standardized tests as mainstream students. Consequently, the challenge of making all students proficient in literacy is significant. Given her experiences teaching students who are English language learners and students who have special learning needs using strategies that only use language-based methods, the researcher will be testing the effectiveness of art integration in the hopes that it might help these populations have an easier time improving their writing and language skills.

Gardner (2008/1993) proposes that individuals have areas of strengths and weaknesses called intelligences. He believes traditional measures of intelligence such as the IQ test are too limiting as they focus only on linguistic and logical intelligences. The thinking strategies traditionally used for the writing process are abstract and language-based. Integrated art projects allow students to visualize and express their ideas concretely using their visual/spatial intelligence (Gardner, 2008/1993). This study investigated whether the concreteness of art-based expression can help students to translate their thoughts into writing that has greater clarity, depth, and detail.

Theoretical Framework

The study explored the work of researchers who have integrated art into elementary and middle school English courses and who as a result of their methods,

improved students' writing skills. A growing body of research demonstrates the effectiveness of art integration on student writing in elementary and middle school classrooms (Oster, 1993; Paquette, Fello, Jalogo, 2007; Albers, P. 1997; Gamwell, 2005; Dyson, 1990; Bitz, 2004; Frey & Fisher, 2010; Leigh, 2010; Andrzejczak, Trainin, & Poldberg, 2005; Handerman, 1993; Morrison, Bryan, & Chilcoat, 2002; Barton, Sawyer, & Swanson, 2007). None of these studies used a control group as a basis for comparison to validate art integration's effectiveness, and none of the participants in these studies were high school students.

It is common for language arts teachers to avoid implementing literacy in forms outside of language-based practices, possibly because of many elementary teachers' limited backgrounds in Art and discomfort teaching it. (Eisner, 1995, as cited in Albers, 1997). This is even more prevalent in high school classrooms where teachers' educations and the curriculum standards they teach are even more specialized and structured into isolated subject areas. Gardner (1993/2008) proposes that intelligences can affect each other in three ways: an intelligence can constrain another, compensate for another, or catalyze another depending on the individual's mix of strengths and weaknesses combined with the task at hand (loc. 3804-3806). The researcher hypothesizes that if an effective strategy is used, a student's visual intelligence can be used to catalyze his/her linguistic intelligence and improve the clarity, depth, and detail of the student's writing.

Visual art offers symbolic ways to communicate that go beyond the written word. Art opens up a visual communication system of symbols to students (Albers, 1997, p. 342) enabling students to expand the ways in which they can brainstorm and express ideas that are more meaningful to them. When writing is personally meaningful and

culturally relevant, students are more actively engaged and intrinsically motivated to perform at higher levels. Student-generated comic books enable students to use visual art as a means to creatively present their writing (Morrison, Bryan, and Chilcoat, 2002, p. 759), expand their linguistic and visual-spatial intelligences, and be able to demonstrate what they understand more easily than if they had been limited to just writing. (p. 759).

Examples of studies that have been successful at improving student writing through arts integration include the following:

- Bitz's (2004) study "The Comic Book Project". This study motivated low-performing middle school aged inner city students who had little or no art background to write highly poignant stories in comic book form.
- The 3rd graders in Barton, Sawyer, and Swanson's (2007) study "They Want to Learn how to Think: Using Art to Enhance Comprehension" looked at abstract sculptures, discussed them, and then created their own abstract sculptures. This enabled them to understand and be able to write about the abstract concept "beauty".
- In Leigh's (2010) study "Violent Red, Ogre Green, and Delicious White", she encouraged 2nd grade students to use tools traditionally reserved for art making as writing tools. She encouraged them to use both drawing and text to record their understanding of the lessons in various subjects in a journal.
- Reilly (2008)'s middle school English Language Learner Students used finger-paints to converse non-verbally about the theme leaving home behind in order to help them write poignant poems on the topic.

- Frey and Fisher's (2010) middle school students were given images (instead of words) as writing prompts, and chose images from the photo sharing web site Flickr to communicate their thoughts and feelings about poverty. They used this to help them write longer compositions and speeches. There was a dramatic improvement in the weakest writers' work and advanced writers' compositions became more precise.

In all of the above studies, the students' art-based activities enabled them to improve their comprehension, thinking, and writing skills. It was thought that these successes might be traced to the fact that students' intuitive right-brains were engaged by the art, enabling them to better translate their ideas into words using their logical and linguistic left-brains

Mc Cade (2006) questioned whether design is a right or left brained activity and concluded that it is both. Successful designs require both the logic of the left-brain and the creative problem solving skills of the right-brain of the creator (p. 74). The researcher has observed through her challenges with writing that too much verbal and analytical left-brain activity can impede her access to right-brain thinking and thus, her ability to be creative. This can lead to a writing block caused by over thinking and self-consciousness. At the same time because writing is word-based, she has observed that she simultaneously needs to be able to access her right brain centered intuitions and feelings and translate them into verbal/linguistic form favored by the left-brain. The researcher has discovered that her level of achievement is often tied to whether or not she has a visual of some sort to refer to that is tied to her writing task. When she can refer to an exemplar to demonstrate what a finished written product "looks" like her ability to

successfully solve the design challenges that strong writing requires improves exponentially. The same is true when she learns new information by looking at a chart that breaks down the main points of complex ideas and uses arrows or color, or another visual device to explain their functions and relationships,

Trial and error uses the creative right-brain to come up with possible solutions to a problem and the logical left-brain to analyze the validity of the results of the implemented solutions. In writing, trial and error is manifested in a series of edits and re-edits. Wolfgang Kohler's research tested apes' and chimpanzees' trial and error learning skills by suspending bananas out of their reach at the top of their enclosure and observing how they used trial and error to figure out how to retrieve them using the various sticks and boxes in their enclosure. In response to this Vygotsky (1978) noted that

Observations of children in an experimental situation similar to that of Kohler's apes show that the children not only *act* in attempting to achieve a goal but also *speak*. As a rule this speech arises spontaneously and continues almost without interruption throughout the experiment. It increases and is more persistent every time the situation becomes more complicated and the goal more difficult to attain. (p. 25).

Given this, this study seeks to test the hypothesis that when students engage in art-based activities tied to their writing assignment, and refer to the artwork when they are writing, students may engage in an internal dialogue, which may in-turn translate their ideas into words facilitating an easier transition into written form. The researcher hypothesizes that when students reviewed and revised what they had written with the

option of referring to their artworks as they do so, their left and right brains were simultaneously engaged in the trial and error problem solving process.

Methods

This study analyzed the work of two classes of tenth grade students (with approximately 30 students in each group). The groups were given 25 minutes to write a composition in response to the prompt “Home is not where you live but where they understand you” on the first day of the study and again on the last day of the study. One was a focus group that created an art project with the same theme as the writing assignment before they write their compositions for the second time. The second was a control group that didn't engage in an art activity. This enabled the researcher to gather data that will suggest the effects of integrated thematic art on students' writing. The researcher's choice to analyze and compare the results in both a focus group and a control group of students from the same age group and population facilitated her ability to determine the effectiveness of the art project. This was based on the difference between the changes observed in the attitudes and writing skills demonstrated in each group.

During the writing sessions, the researcher observed both classes, and recorded field notes describing the overall behavior and engagement of the students. Engagement was measured by recording memos on a seating chart such as if students chose to use the entire 25-minute time slot to work on their writing assignment or finish earlier. The researcher used a timer to keep time. During the focus group's second writing session, the researcher also noted how often students refer to their art projects on the seating chart.

Both the focus and control group students filled in a survey after they completed each of the two writing sessions. The surveys asked students multiple-choice questions

about their confidence in their writing skills, their ability to express their ideas and opinions, the amount of depth they were able to include, the amount of detail they used. They were also asked yes/no questions about whether or not they enjoy writing, and in the case of the focus group, students indicated whether or not they enjoy engaging in art-based activities. After completing the second writing session, students from both groups were asked if they think their second writing sample is better, the same, or weaker than their first. The focus group indicated if the act of creating and being able to refer to their sketchbook assignment made it easier to write, made it harder to write, or had no effect on their ability to write.

Setting

The study was conducted at a public secondary school located in Toronto, Canada. Two classes of tenth grade students participated in the study. The focus group was an art class that engaged in a visual arts-based project on the same theme as the writing assignment. The control group was enrolled in a tenth grade academic streamed English class.

Analysis

Ten pairs of before and after writing samples were randomly chosen from the control group and five pairs of samples were randomly chosen from the focus group. Each writing sample was scored for the degree of clarity, depth, and detail exhibited. Clarity was measured through the strength of word choice and overall intelligibility of the ideas the student is expressing. Depth was measured through the length of the writing piece and the number of examples or unique ideas and explanations for these that the student included. Detail was measured through the use of adjectives, adverbs, figurative

writing, and other devices that enrich the ideas the student wrote about. The scores of each pair of writing samples from the five randomly selected students in each group was compared and averaged according to each of the three criteria and according to the overall score.

The selected students' pairs of surveys (filled out after each writing assignment) were analyzed to determine if there was a change in their attitudes toward writing and perception of their ability to be successful at writing. The researcher checked for patterns or trends of changes within each group overall for the entire survey, e.g. if overall students' feelings toward writing improved, stayed the same, or worsened after writing the second version of their composition and for each individual question. The students' writing samples and their answers to the questions in the surveys they filled out after each session were analyzed for patterns. The patterns in the control group data were compared to the patterns found in the focus group data. This triangulated information was used to strengthen the validity of the analysis (Maxwell, 2005, p. 94).

Summary

This study draws upon the researcher's ten years of experience as an Art and English teacher challenged with the task of raising the literacy levels of populations at risk. It will investigate the effect that art-based visualization will have on the clarity, depth, and detail of tenth grade student writing. To date, there is very little published research on arts integration at the secondary school level. Almost all of it is concentrated in the elementary grades, particularly the early primary grades. Additionally, strategies that enable students to express their understanding in activities that are not language-based are rarely tested as a means to help them to improve their ability to express their

understanding in writing. Low literacy scores in standardized testing are a challenge at the secondary school level where many students have elementary level writing skills.

Two groups of students were given identical writing prompts and blocks of time to complete a writing assignment as well as a survey. One group, the focus group also completed a sketchbook assignment on the same theme as the writing topic. When the researcher analyzed the results, she compared three sources of data: the writing samples from each session, the surveys from each session, and the students' levels of engagement from each session as recorded on my seating chart. The researcher determined whether there is a consistent trend that that suggests an improvement, no change, or a worsening in the students' writing levels and attitudes toward writing in the results of her three sources of data. She then determined whether the results align with her hypothesis. In Chapter Two the conceptual framework and review of the literature will be further discussed.

CHAPTER 2: REVIEW OF THE LITERATURE

One of the greatest challenges students in both my English and Art classrooms struggle with is writing. Many students who are proficient at clearly expressing themselves verbally have difficulty assembling a coherent, grammatically correct sentence. In my experience, this is true in populations from all socioeconomic backgrounds. It is manifest in students who are native English speakers and students who are English language learners. This review examines the effect of visual art integration on student writing proficiency where students use images as a means to bolster their writing skills. It will examine alternate pathways to literacy and how art can be used to help students make connections to their ideas through a hands-on experience. It will also explore how art can help students to improve their vocabulary, and the benefits of having students communicate their ideas both visually and in writing. This literature review will illustrate the connections between the researcher's tacit theories and conceptual framework. It will ground the study in the literature's theories and findings. Connections will be made between the literature and how they relate to the research question: Can visualizing and expressing their ideas in a visual art medium help students improve the clarity, depth, and detail of their writing?

Background

Language-based communication's dominance in popular culture is waning and is being replaced or greatly supplemented by visual communication. Despite this, the English Language Arts "designed lessons" I was required to teach in Los Angeles were entirely composed of language based activities and teaching strategies. The Los Angeles Unified School District implemented these lessons in response to the overwhelmingly

high percentage of schools that had very low scores on the annual stage standardized tests. They were almost entirely rooted in written and verbal language-based communication. Both in my practice and my observations of my colleagues' practice, these strategies were very limited in their effectiveness to engage students and improve their writing skills. There was little or no time and resources to integrate other communication systems such as art into instruction. No professional development support was available to help facilitate this.

Scenarios such as the one I experienced in Los Angeles are common across North America. Traditionally, schools have favored one or two methods of instruction, practice and assessment. These methods are not effective for all students. Students taught using these strategies that do not have high scores on their assessments have commonly been sidelined as incapable of higher-level learning. Both they and the educational system lose belief in their ability to be successful learners and high achievers. My primary goal as an educator is to engage students who are otherwise unmotivated to learn. I want to implement effective strategies to guide them through multiple methods of learning the curriculum standards. This would allow them to use methods that are best suited to their aptitudes and interests. My secondary goal is to be able to mentor other teachers so they can also implement these strategies.

Literature Review

Alternate Pathways to Literacy

When the researcher interviews for jobs as an Art teacher, she describes her teaching style as one in which she teaches Art like an English teacher. Her goal is to teach students to be literate in art's visual communication system. In order to reach this

goal, she teaches students how to communicate their thoughts such as a narrative, or a political statement and feelings such as joy or sorrow in their artworks. She also teaches students to interpret possible meanings in the artworks of others such as their classmates or professional artists.

Traditionally, literacy has been limited to one's ability to read and write (Handerman, 1993, p. 244). People who are unable to read and/or write have traditionally been labeled ignorant, and by extension, assigned biased labels of having diminished intellectual capabilities. In this model, language is privileged above all other cognitive processes in learning (Handerman, 1993; Stevens, 2002; Harste, 1994, 2000 as cited in Cowan & Albers, 2006; Harste Woodward and Burke, 1984 as cited in Albers, 1997; Siegel (1984) as cited in Albers, 1997; Tseng, 1994 as cited in Albers, 1997). Examples of such strategies can be found in studies such as suggested in Cooper-Duffy, Szedia, and Hyer's (2010) article that described techniques that could help significant cognitive disabilities improve their literacy relied on language-based activities. Although Langer's (2000) *Guidelines for Teaching Middle and High School Students to Read and Write Well* provides insightful suggestions for structuring lessons to make their content more meaningful to students and transferrable between subject areas, its methods are rooted in language based strategies. These include chunking large tasks into segments to not only make them more manageable, but to teach students how to better understand how to break them down (p. 10). She suggests students who are reading historical novels (for example) research the time period to better understand the literary elements. (p. 12). Langer also suggests having students work in teams so they may divide tasks in a big project and have thoughtful dialogue about what they were learning. This bias toward

language-based methodologies was also reflected in the exclusively language-based teaching strategies that the researcher was taught in her English Language Learner credential course in Los Angeles.

Given the researcher's experience with the limited effectiveness of language-based strategies, the strength of her students' writing when they wrote about their art projects, and her observation of her colleague's methods and their effectiveness in Los Angeles, her hypothesis is that art integration may enable teachers to more effectively help their students improve their writing.

Graphic novels.

Recently, graphic novels, which are long-form comic books, have begun to receive increasingly widespread acceptance in the classroom. They are no longer seen as a lower form of literature (Frey & Fisher, 2010). Comic books have traditionally been excluded from the English Language Arts classroom because many teachers consider them to be frivolous and not rigorous enough for academic study. Teachers "fear that such a non-traditional approach denies students the time during which they could gain additional exposure to the canon." (Morrison, Bryan, & Chilcoat, 2002, p. 758). Studies such as The Comic Book Project challenge these biases.

The comic book project.

The Comic Book Project's goal was to "forge an alternate pathway to literacy via the visual arts" (Bitz, 2004, p. 33). This study demonstrated the effectiveness of this strategy with students who had not been identified as artistically talented (p. 33). Despite their inner-city living environment, their history of having very limited motivation to write and their low standardized test scores, the students in this study became very

engaged in writing and storytelling when they were asked to do so using the comic book format. This is consistent with Cattrell's (1998, as cited in Richards, 2003) analysis of United States Department of Education Data. Cattrell (1998, as cited in Richards, 2003) found that students who are active in the arts "score on the top 2 quartiles on the standardized tests" and are less likely to drop out of school than students who are not active participants in the arts (p. 20).

The comic book was a strong choice of genre for Bitz's (2004) study because of its prominence in the popular culture the students subscribed to, and the ease with which the students could match their pictures with words. The students' stories expressed their "thoughts and beliefs, particularly their fears and perceptions about life and occasionally dismal predictions for their own futures." (p. 39). Their motivation was greatly enhanced by their excitement about the end product they would be creating which could be shared with each other, displayed in schools, and presented online. The success of The Comic Book Project can be attributed to the fact that the students were engaged by what Green (1978, as cited in Handerhan, 1993) describes as motivation through personal interest. They were driven by their intrinsic interest as opposed to being pushed to work hard because they had to satisfy someone else's goals (p. 248). It enabled the teachers in the study to be able to achieve what Stevens (2002) describes as being able to "reach students who may not be easily reached otherwise" (p. 22). In other words, the students were intrinsically motivated to work hard and create strong end products because of their interest in what they were writing about and the format it was being presented in.

The Effects of Direct Experience Through Art on Abstract Thought

One of the greatest challenges the researcher's Art and English students have faced when writing is engaging their higher level thinking skills. Higher-level thinking skills include analyzing, synthesizing, and evaluating information. Such thought is often abstract and difficult to express. Drawing helps students articulate their ideas in words more easily (Dyson, 1990). It enables them to use the concreteness of the artwork to see beyond the surface and into the abstractions. Language is most effectively learned through direct experience and in a functional context: "Students learn language not in abstract, decontextualized terms but in application, in a context that language is really for. For students, language learning occurs best when the learning context matches the real functional context." (Duke, Purcell-Gates, Hall, & Tower, 2006 p. 345). Art activities empower students to have control over the environment in which their learning is being constructed (Gamwell, 2005, p. 359). Consequently, the concreteness of art enables students to express their ideas in a medium they can see, touch, manipulate, and later, draw upon the experience of creating the work. This can be used to help them conceptualize the points they will make and which details they will include in their writing.

Creating abstract sculptures to understand abstract concepts.

Writing often requires students to be able to express their understanding of abstract concepts in words. Art's ability to help students to visually understand abstract concepts so they can learn to become better readers is exemplified in the case of the 3rd graders who were able to talk about the abstract nature of beauty after working with physical materials to create abstract sculptures (Barton, Sawyer, and Swanson, 2007).

Students were asked “make something beautiful” (p. 128) out of materials such as plastic tubes, plates, colored tape, and pipe cleaners. They used the book *The Gardner* (Steward, 1997) to help them write a recipe for creating beauty, and to understand how they can use the materials they find around their homes to transform their environments into places that are more beautiful (p.131). The experience of learning about a professional artist’s abstract sculptures and creating their own abstract sculptures enabled them to pull together visual, tactile, and kinesthetic connections with the abstract concept of beauty. The discussions they had about their sculptures helped them to practice expressing their abstract thoughts and interpretations in words. The study concludes that art can teach students that “looking is not the same thing as seeing” (p. 131) as the latter requires focused attention. This enabled students in the study to learn how to overcome their cultural assumptions and biases by “seeing” as opposed to “looking” at the meanings between the lines of the text they were reading to uncover hidden truths. Higher level thinking skills such as these are what strong writers use to formulate their opinions so they can later express them in written form. In the case of the students in the study, their newfound ability to read between the lines of the text and come to new understandings are foundational skills that can inform future writing endeavors and enable them to improve the clarity, depth and detail of their compositions.

Using art to release a child’s imagination.

Successful writers have a clear picture in their minds of what they are communicating when they write with clarity, depth and detail. This often requires imagination. Greene (1995 as cited in Leigh, 2010) believes direct experience in art-based activities allows children to discover and release their imagination. The students in

Leigh's (2010) study were encouraged to use art materials for both their writing assignments and their drawings and paintings. Leigh's study explored the effects of giving students daily access to a variety of media and empowering them with the ability to choose which media they use and how they construct meaning using these materials.

Leigh (2010) believes teachers should prioritize process over product and empower students to choose the tools they use to express their ideas. Learning should first and foremost be about exploration, not getting to the correct answer. Leigh (2010) and second grade teacher Regi facilitated exploration by allowing students to choose the tools they wished to use for both writing and drawing tasks. Traditionally, graphite pencil has been the primary tool for writing in elementary classrooms because it can be erased when students misspell words or make mistakes when solving math problems. Leigh (2010) believes that this not only focuses students' priorities too much on being correct, but limits students' ability express themselves. When Regi called students to the carpet in Leigh's (2010) study, she asked them to "bring something to write with" (p. 253) not specifying or privileging one tool (such as graphite) over another (such as crayon or marker) to facilitate the goal of empowering students to express themselves using their own unique voice and vision.

In Leigh's (2010) study, art and language were treated as equally valuable modes of communication. Students were asked to create both written and drawn journal entries three times a week about lessons they learned in class. Many students used ink, graphite pencil, oil pastel, and paint to "unearth their deepest curiosities" (p. 254) and went on to think more deeply about what they were learning than students typically do without access to such tools. This exemplifies Dewey's (as cited in Leigh, 2010) belief that

reflection is essential for building and extending knowledge and understanding. Without it “one cannot be moved or changed” (p. 254). When the students reflected on their lessons by using both writing and drawing instead of only writing, they were better able express as well as broaden and deepen their understanding of the material they learned.

Integrating art and language.

Reutzel (2003 as cited in Paquete, Fello, & Jalongo, 2007) states the importance of creating visual images in one's mind that can be used as a framework for “organizing, remembering, and constructing meaning from text” (p. 66). Mulcahey (2009 as cited in Leigh, 2010, p. 255) takes this concept a step further by suggesting “Looking at artwork helps children learn how to tell stories as they relate their own experiences to what they are seeing”. In Leigh's (2010) study, a 2nd grade student named Rebecca created a drawing that included the word “Friedss” (which was her way of spelling “friends”) in which she alternated blue and red pastel to show how she and another classmate Rothea (each represented by one of the colors), are friends. When asked how this idea could be extended, Rebecca suggested colors could be assigned to a story's text to indicate the speaker in the story. Her intention in this suggestion was not to replace the use of quotation marks, but to use color as a symbol system that is integrated into the text. Integrating art and language enabled a 2nd grade student to create strategies to improve the clarity, depth and detail of concepts she was communicating by integrating art into her writing.

The Need for Alternate Methods of Teaching Vocabulary

North America's growing population of English language learners can no longer be allowed to fail, passed with inflated grades, or drop out if they fail to become

proficient in English and are ineligible to attend post-secondary education programs. In the past, immigrants such as the European Jews who lived in New York City in the late 1800's and the early 1900's worked in factories and did other skilled and menial labor. Little or no proficiency in spoken or written English was needed for these jobs. Their children also became garment workers or bag manufacturers. It took three generations of living in America for members of this community to become university-educated professionals such as doctors and lawyers (Gladwell, 2008, loc. 1876-1882). Given the decline of America's manufacturing sector, few jobs of this kind still exist to provide wages and benefits for immigrants to subsist on. Proficiency at reading and writing English and a post-secondary education is no longer a luxury or a long-term goal for future generations; it has become essential for employment in the 21st century economy.

Given the limited success the researcher has observed of traditional methods of teaching English language learners that rely entirely on language-based spoken and written activities, new methods that branch out beyond words are needed. Art is an accessible, hands-on mode of communication that can be used to help English language learners improve their vocabulary and writing skills. Andrzejczak, Trainin, and Poldberg (2005) found that when students created art related to their writing topics, they "used more time for thought, collaboration, generated strong descriptions, and developed concrete vocabulary" (p. 1). In their study, students engaged in art activities prior to writing to stimulate their ideas both visually and in words resulting in texts that were more coherent. The success of this strategy is also exemplified in Armon and Morris's (2008) study where students were able to better demonstrate their understanding using both drawings and written explanations than through writing alone. In Reilly's (2008)

study English language learners expressed their ideas visually in finger painting “conversations” which they used to write poems on the same topic as the conversations. The researcher will be implementing a similar method in her study to determine the effect it will have on the clarity, depth and detail of the students’ writing.

Integrated assessments.

In Armon and Morris’s (2008) study, Ms. Adams asked her students to create drawings that communicated their understanding in her science class. Their study highlights the usefulness of combining writing and drawing to guide one’s teaching. Ms. Adams used a combination of art and writing in her lessons and assessments of students’ vocabulary development. Emil, an English language learner was her focus student in the study. His notebook entries included both drawings and text. They demonstrated the growth of both his knowledge and his vocabulary. For example, in Emil’s April observations, his written descriptions include more labels on his drawing and more detailed, descriptive language (p. 51).

Although Armon and Morris (2008) suggest that Emil’s progress was accelerated by the integration of drawing into his lessons, they note that strong drawing skills were not necessary for him to be successful. It is worth noting, however, that if drawing skills are taught, students have an easier time communicating their ideas visually. Armon and Morris’s (2008) study suggests that integrating drawing into lessons speeds up the learning process. Consequently, students are more likely to be able to express their knowledge and understanding clearly and with depth and detail in their writing.

Nonverbal dialogues in finger paint.

English language learners can be freed from many of the barriers of communication they face in school through the use of “nonverbal ‘dialogues’ where two or more people engage in a conversation using finger paints. Reilly’s (2008) study explored the power of generative thinking through the interaction with visual art. In this study students sit opposite each other with a 12”x16” sheet of finger painting paper and a palette of finger paints between them. For twenty minutes, they use the paint as a medium for a visual conversation. Over this time, multiple layers of paint were added to the paper. The students’ images evolved from ones inspired by the story they had just heard as a class to images that are personally meaningful to them on the theme of the story.

Once these conversations were complete, the teacher modeled strategies for translating the paintings’ imagery into a personally meaningful poem. Later in the unit, she, used one of the strongest students in the class’s poems as a model for how to edit and revise and improve it. Reilly (2008) hypothesizes that the images the students create and refer to when they are writing trigger experiences tied to the topic that they can then translate into written form. When students were struggling for the right words to use in their poems they would shift their attention back and forth between their painting and their writing using their painting as a resource for ideas. Doing this helped them find the right words to incorporate into their poems. Their teachers reported that after the finger painting dialogues, the students showed greater enjoyment of the writing process than they had in the past and were more likely to read for pleasure on their own time. This suggests that a similar activity such as the integrated drawing assignment students in the

researcher's study may help students to improve their attitudes toward writing and the clarity, depth and detail of what they put on paper.

The Effects of Left and Right Brain Thinking on Writing

Schooler (as cited in Gladwell, 2005) pioneered research on “verbal overshadowing” (loc. 1571) which is the thinking process that prevents one from clearly translating the non-language-based thoughts and ideas located in the right-brain into the language and logic-based thought of the left-brain. Gladwell (2005) explains this phenomenon comparing the act of identifying a stranger one had a brief encounter with using face recognition in a police lineup with having to give a detailed written language-based description including information such as the person's hair color, facial features, clothing, and jewelry. Most people would have difficulty giving a written description, but would be able to identify the person with relative ease if seen in a police lineup. Schooler (as cited in Gladwell, 2005 loc. 1580) hypothesizes that the reason for this is the process of translating the information from the right to the left hemisphere displaces one's visual memory, specifically, details of what the person looked like. In other words, a great deal of information is lost in the translation process from visual knowledge to language-based knowledge.

When we are forced to verbalize our memories we are disconnected from a great deal of the non-verbal information we need to describe them. Consequently, our descriptions lack clarity, depth and detail. Some instances of writer's block could be explained using this theory. For example: when students begin with a concept they want to write about, and get stuck, after stating their idea and are unable to expand on it. Their responses are short and often lack clarity, depth, and detail. An opportunity to informally

test this theory arose when one of the researcher's students asked her for help with an essay she was trying to write. The student explained that she had a clear scenario in her mind that supported the thesis of her essay but became lost when she tried to write about it, even in point form. The researcher suggested she create a simple stick figure comic strip complete with thought and word bubbles to illustrate the scenario, and then record as many other supporting scenarios in the same way. Following this, she was instructed to use them to create the outline for her essay drawing on the comic strips for evidence and details. Upon doing this the student's block disappeared, she was no longer confused about what to write. A ninth grade student in another class told the researcher that in 7th grade she began doodling when she was bored and unable to come up with ideas for a writing assignment. She discovered that her doodled helped her to think of things to add to her composition and she has been using this method to help her write ever since.

Combining modes of expression to create deeper meaning.

Left and right brain thinking processes can be streamlined when multiple modes of expression are used concurrently. At present, one of the greatest limitations of implementing this lies in secondary education's isolation between instructional focuses and topics across subject areas. This is particularly evident in the current system widely used across America where students change classrooms and subject areas every forty minutes (Oster, 1993, p. 24). As a result, few students are likely to make meaningful connections between their knowledge and understanding in the courses they are studying. Additionally, their ability to synthesize, analyze, and evaluate what they are learning and producing is limited. Art making, a process of expression and discovery, is about interlacing together ideas into a unified, coherent creation (Eisner, 1998 as cited in

Gamwell, 2005 p. 377). The act of learning could be described the same way. When students are able to weave together analogous and complementary meanings derived from multiple semiotic systems such as language, visual art, and the performing arts, the depth of their knowledge and strength of their interest in and retention of the knowledge is significantly increased. (Wilhelm, 1995, Buckelew, 2003 as cited in Barton, Sawyer, & Swanson, 2007 p. 128).

Semiotic systems of communication.

Semiotics is the study of signs and symbols used in communication. Symbols systems include “words pictures, gestures, numbers, musical patterns, and a whole host of other symbolic forms” commonly used in human communication and computer programming (Gardner, 2008/1993). A symbol often implies more than a single idea (Frey & Fisher, 2010). For example: a photo of a family meal connotes comfort, stability, and security in addition to its denotation of a family eating together. It can be easier to detect the sub-textual meaning of an image than a word. Given this, practicing the identification of implied image-based meanings can help students to understand what it means to identify the hidden nuances in text. In this way, art integration can help improve students’ proficiency at identifying language-based connotations through similar activities using images. Students can then begin to use them to strengthen the clarity of their own writing.

Frey and Fisher’s (2010) students did “quick writes”, which are five-minute writing exercises where students are asked to respond to a prompt. They did this several times a week based on images as opposed to textual prompts, which are traditionally used in language only-instructional strategies. When the students’ writing became more

refined, the class studied a unit on poverty in contemporary culture. Instead of immediately delving into reading or having class discussions about the topic, Frey and Fisher's (2010) students began keeping a writer's journal where they responded to images the teacher shared with them that portrayed poverty in the United States. Following this, they read a graphic novel, a traditional novel, and informational texts about poverty. They chose three images from the image-sharing site Flickr that in their opinion best expressed poverty and combined them with their own writing. This was later used to further develop their ideas into longer written pieces and public speeches. Frey and Fisher (2010) observed that combining words with images enabled students to arrive at new knowledge and understanding. Struggling writers' work improved dramatically, and advanced writers' work became more precise. The results of this study suggest that integrating images into writing assignments can improve the clarity, depth, and detail of students' writing.

Summary

One of the greatest obstacles students face when they are writing is clarifying in their minds what they wish to say, and choosing the best words with which to express their ideas. Given the difficulty of this task, it is easy for students to become unmotivated. When the researcher's English students used the language-based strategies taught in her professional development courses, limited improvements were evident in her students' levels of engagement and achievement. This could be in part because of a loss of information that occurs when thoughts and insights are transferred from the right brain to the word and logic based left-brain as suggested by Schooler (as cited in Gladwell, 2005). The review of the literature's studies integrated comic books, abstract sculptures, non-

traditional writing materials, integrated assessments, and non-verbal dialogues using finger paints into writing assignments, all of which improved student writing. This suggests the effectiveness of art integration on student writing. It supports the researcher's hypothesis of its value over language only strategies, based on her classroom experiences. In Chapter Three, the methods that will be used in this study will be further discussed.

CHAPTER THREE: METHODOLOGY

This study investigated the effects of an art integration exercise on the clarity, depth, and detail of students' writing. Many students face challenges with writing, particularly their ability to express their ideas clearly, demonstrating depth of thought and understanding, and including details to support their claims. The writing strategies the researcher was taught in her credentialing and in service professional development courses for English teachers in Los Angeles only used spoken and written language. In her experience, they had limited effectiveness on improving the engagement and proficiency of her ninth grade English students' writing. This led her to research alternate methods for her classroom practice and test their effectiveness. Her choice to use art integration strategies was largely influenced by her experiences as an Art teacher. This chapter will discuss the methodologies this study used for data collection and its plan of action to measure the effect that art integration has on the clarity, depth, and detail of student writing.

Methodology for Data Collection

Theoretical Perspectives

This study primarily used the perspective of a grounded theory based on systematic comparative analysis and fieldwork to explain what was observed. It also incorporated elements of the perspective of ecology psychology and linguistics.

Grounded theory.

Grounded theory is a qualitative research methodology. In the perspective of grounded theory, the researcher collects data through a variety of methods or perspectives. The data is coded, grouped together according to categories of similar

concepts and used as the basis for a theory. In this study, students' written compositions were evaluated using a rubric. The surveys' multiple choice and yes/no responses were analyzed for patterns. The students' attitudes toward writing were measured in their survey responses.

Ecology psychology.

Ecology psychology studies how individuals attempt to accomplish their goals through specific behaviors in specific environments. This perspective was examined through the strategies and behaviors the students exhibit as they worked on their written compositions.

Linguistics.

The perspective of linguistics analyzes the meanings of signs such as words and symbols in particular contexts. The written and drawn work of the student participants was analyzed for its semiotic meanings.

Timeframe, researcher's roles and relationships, and validity concerns

The study was conducted over the course of two non-consecutive days in the classrooms of two different teachers. The researcher is not the participants' primary educator. This enabled her to avoid the conflicts of interest that can arise when researchers are also the classroom teacher and must balance the instructional needs of their students with the investigational needs of that study (Wong, 1995). This limited any unconscious biases she may have had if she knew the students better. The students' writing was not scored blindly. The researcher knew which compositions belonged to the focus group and which belonged to the control group. These validity concerns were

minimized due to the quantitative nature of the primary data and the use of a scoring rubric that sets a clear, consistent standard for its analysis.

Participant groupings

The study divided students into two groups. One was the focus group that engaged in an art activity. The control group did not engage in an art activity. Both groups engaged in identical writing assignments with the same time limits and guidelines. Both groups also filled out surveys that were identical apart from several extra questions that were only asked of the focus group. During the writing sessions, the researcher used a seating chart labeled with the students' pseudonym. She noted if or when students stopped writing and became disengaged in the task, or exhibited some other behavior or reaction. She also used the chart to record any questions they ask of her during the writing session or comments they made.

Rationale For Methods and Data Gathering

The researcher's goal was to find effective ways to implement arts integration activities into core subjects. The limited comfort level that many core teachers who are not art specialists have teaching art techniques results in a reluctance to include it in their lessons and assessments (Eisner, 1995, as cited in Albers, 1997). This study was designed so no formal art instruction was needed or would be given during the art project segment. This ensured the results did not reflect the teacher's or the researcher's background in art or ability to teach it.

Schooler's (as cited in Gladwell, 2005) theory of "verbal overshadowing" (loc. 1571), the thought process that inhibits the clear and complete translation the non-language-based thoughts and ideas located in the right-brain into the language and logic-

based thought of the left-brain could explain some reasons why students struggle to write. When students begin the writing process, they often come up with a solid idea they wish to build their argument on but get stuck, preventing them from expressing their argument in writing with much clarity, depth, or detail.

This study compared writing samples and surveys from two groups of high school students. It checked for changes in the clarity, depth, and detail of the participants' writing after one group had engaged in an art integration activity and the second had not. The rationale behind this approach was to draw on multiple sources of data to determine if the art-based activity was responsible for any changes in the students' writing, or if the effects might have manifested themselves without it.

The data collection methods that were used in this study were almost entirely pre-structured, using timed, prompted writing samples that were analyzed using rubrics, multiple choice and yes/no question surveys. This simplified the process of analysis (Maxwell, 2005 p. 81). Incidental observations such as informal conversational exchanges or questions fielded by students participating in the study (recorded in the researcher's notes) as well as any rough notes the students created during the writing process were examined during the data analysis stage of the study for contextual information. The data from the focus group and control group which included the students' written compositions, their rough notes, surveys, and the researcher's informal observations facilitated triangulation of the results. This reduced the risk of bias in the conclusions the researcher drew from the analysis (Maxwell, 2005, p. 93).

Setting and Demographics

The tenth grade students participated in the study attend a high school in the Toronto District School Board in Toronto, Canada. It cannot be identified in this study due to confidentiality stipulations set out by the Toronto District School Board's External Research Review Committee so it will be hereafter be referred to as "TDSB High School". TDSB High School is located in an area of Toronto known for high crime rates, gang activity, and families living on low incomes. Single mothers head many families in this community. The majority of the students who attend TDSB High School are visible minorities. Many were not born in Canada, and do not speak English as a first language. In many families, English is not the primary language spoken at home. 18.8% of the students are enrolled in English as a Second Language courses (Fraser Institute, 2010). According to the Fraser Institute (2010) Between 2005 and 2009, the percentage of students who passed the Ontario Secondary School Literacy Test required for graduation has increased 23.8% from 51.6% to 75.4%.

Although the researcher was interested in the impact that the art integration strategy could have on all populations, she chose to conduct it at TDSB High School because of her experiences teaching populations that lived in a comparable neighborhood with comparable test score results and challenges with student motivation in Los Angeles. Like the school in Los Angeles, which was ranked among the lowest performing schools in the district, TDSB High School's test scores are among the lowest in the province (Fraser Institute, 2010).

The study was conducted in two different tenth grade classes taught by two different teachers. The students were in the focus group completed all study-related tasks

during their tenth grade Visual Art class's instructional time. The students in the control group, who did not completing the art project, completed all study-related tasks during their tenth grade English class.

Plan of Action

Description

Prior to the commencement of the study, the teachers of the two classes briefed the students on it. Because the Toronto District School Board policy mandated it as a condition of approval for the study's implementation, the students' parents/guardians were given letters informing them about the research and asked to sign release forms (see Appendix A) granting the researcher permission to use data their children/wards in the analysis.

The first writing session.

On October 25, 2010 the first stage of the research was implemented. Apart from the art activity, which was facilitated on November 1st, the students' did not receive any formal instruction during this study. The study's data primarily reflected their behaviors and achievements during a formal assessment of their writing. The researcher introduced herself and her study to the students and how it was to be implemented including details about how their names were to be kept confidential, and the seating chart she would be using to take notes during the study. She gave students the opportunity to ask questions and respond to them. Following this, she wrote the thematic prompt "Home is not where you live but where they understand you" on the board and asked students to respond to this quote. Did they agree or disagree with this statement? Why? The students were asked to give examples to back up their reasons.

The procedures, climate and behavioral expectations of the students reflected typical test-taking conditions: no instruction was given other than an explanation of the task they were to complete, students did individual work, and they were not allowed to talk to each other or distract each other during the writing sessions.

The students were given 25 minutes to write. A timer was used to indicate when 25 minutes had elapsed. Both groups were permitted to draft traditional rough notes and outlines if they chose during the writing session. When the timer's buzzer sounded, all students were asked to stop writing, turn their papers over, and pass them forward including all rough notes they created during the writing session so they could be collected by the researcher.

Once the papers had been collected the students were given up to five minutes to fill out a survey about their perceptions of the quality of their work, their skills as a writer, and their attitudes about writing. The surveys were identical for both classes except for an additional question asked of the focus group about whether or not they liked art. The surveys asked students questions such as "Do you enjoy writing?", "How confident do you feel about your ability to write well?", and "How clearly do you think you were able to express your ideas and opinions in the writing assignment you just completed for this study?" (see Appendices B and C).

The focus group's integrated art-making session.

On Monday November 1st, the students in the class selected to be the focus group did a sketchbook assignment. They were asked to draw in any style they chose (including stick people) pictures, designs or comic strips (or any combination of the above) that

visually expressed the experiences they would later upon to explain why they agree or disagree with the statement “Home is not where you live but where they understand you”.

After a brief discussion and instructions, students were given 8.5”x11” sheets of plain white paper on which to draw, and provided with pen, markers, colored pencils, and graphite pencils to draw with. They were instructed not to talk to one another during this process but to focus on their ideas and recording them on the page. Approximately 30 minutes was allotted for this purpose (see Appendix D for the lesson plan).

The second writing session.

On November 1, 2010, both groups did the writing task again, and filled out a second survey after they were done. It included the same questions as the first survey they filled out plus the addition of questions such as “Did you ever look away from your paper and stare into space when you are writing today?” and “When your thoughts are focused on coming up with ideas to write about, do you think of a) words, b) pictures, c) sounds, d) smells, e) other_____.” (See Appendices E and F). Two additional questions were added to the control group’s survey after the researcher observed some of them doodling during the writing session. They were asked if they doodled and if so, whether they did so to help them write, because they were bored, or for some other reason, and if so, to specify what it was. Both groups were permitted to draft traditional rough notes and outlines if they choose during the writing session although they were not required to do so.

The students in the focus group were given the choice to use their artwork as a visual reference during the writing session in second half of the teaching block when they repeated the same writing task they were given on October 25th. The control group did not

complete an art project and did not have the option to use any sort of visual reference to refer to for ideas when they are writing.

Fifteen students from each group were randomly selected. Their writing samples and survey results from October 25th and November 1st were compared to see if there was a change in the clarity depth, and detail of their writing, their attitudes toward writing, and their perception of their ability to write well. The focus students' artwork was examined for its level of detail, variety of ideas expressed. The goal of the analysis was to determine the effectiveness of art integration strategies on student writing.

Pedagogical Methodology

Traditionally, when teachers give students writing assignments, the prompts are expressed in words. They are typically written on the board or typed up on a handout. Students are then encouraged to use various kinds of charts also referred to as graphic organizers to brainstorm and organize their ideas. These can take the form of mind maps, Venn diagrams, or say mean matter chart. In mind maps, a central concept is written in the center of the page, and the writer then draws lines leading outward from that concept and records as many ideas s/he can think of related to the topic. Venn diagrams enable the writer to compare two concepts listing their unique properties on the outside columns and their shared properties in the center columns. Say Mean Matter charts have students copy key quotes from the texts they are reading, paraphrase them, and then explain their significance. Some strategies require students to discuss the topic in pairs or small groups and then share their ideas with the whole class. All of these strategies are word-based and logical. It can be difficult to engage students in them even if the subject matter

is chosen because it is likely to appeal to them, particularly if students have low motivation.

Timing

In the first part of this study when the students wrote a response to the prompt for the first time, traditional methods were followed for both groups. The researcher wrote a prompt on the blackboard and gave the students 25 minutes to write a response to it. Students were instructed to tackle this task as they saw fit: They can begin writing immediately or they can create an outline or rough notes in a format of their choosing before they begin writing. No formal instruction on how to brainstorm ideas or organize them was given in order to document if they use any brainstorming methods and if so, which ones. The second part of the study incorporated an art integration strategy into the focus group's writing by having them create a drawing that expresses their thoughts and ideas about the theme they will be writing about. They were able to refer to these drawings when they wrote their compositions for the second time.

Methods of Assessment

The researcher primarily focused on two sources of data during the analysis process for this study. The first was the students' survey responses. Both groups' surveys were identical except for the addition of several questions to the focus group's version. The students were asked how they feel about expressing themselves visually. After the second writing session, they were asked whether they thought engaging in the art activity affected their ability to write, and if so, if it helped or hindered it. They indicated whether they think having the artwork they created at their disposal as a visual reference affected their ability to write (for complete data, see Appendices B, C, E, F). Changes were

tracked in the students' perceptions of their ability to write well and their attitudes towards writing between the first and second writing session. The second primary source of data was the writing samples themselves, which were evaluated for their degree of clarity, depth, and detail using a rubric (see Appendix G). The students' writing scores based on the rubric from the first and second writing session were compared to determine if there were changes to the clarity, depth, and detail of their writing, what these changes were, and if an emergent trend is evident in each group that in order to determine if the integrated art activity had an effect on their writing.

Evaluating the Study's Progress

The researcher ensured that sufficient students had turned in their permission forms to conduct the study. The host teachers whose classes participated in the study were briefed on how the study will be conducted to ensure everyone was clear about what the study would entail. The first set of written compositions was evaluated using the rubric. The researcher evaluated whether any adjustments were needed to strengthen the validity of the students' scores for clarity, depth and detail. She anticipated that possible modifications might include adding additional criteria lists or dividing criteria from one list into two so the results could be evaluated more accurately, or re-wording the criteria for clarity. None were deemed necessary. She ensured that all students were clear on what the survey questions are asking them, and verbally paraphrased the questions for clarity as needed. As the study progressed, she reflected on her informal observations to see if more are needed or if they could have been coded in a particular way that would inform her analysis. The study's success was measured in the clarity and richness of the data collected and how easily the researcher was able to code it, analyze it, and "thin

slice” (Gladwell, 2005) only the essential data that explained the results in order to draw conclusions from it.

Summary

The methods of this study were designed to measure the effectiveness of an integrated art project on the clarity, depth, and detail of students’ writing. It was designed in response to the traditional word-based strategies the researcher was taught that she has had limited success with and the growing body of literature that suggests that art integration can help students become more engaged in their work and improve the thinking and language skills they need to write with greater clarity, depth and detail. The use of a focus group that did an integrated art project and control group that did not do an integrated art project enabled to researcher to determine more objectively if changes to the students writing and attitudes toward writing can be attributed to the art integration strategy. In the next chapter, the results of the study will be reported and analyzed.

CHAPTER FOUR: RESULTS

Two classes of tenth grade students participated in a study that measured the effects of an integrated drawing activity on the clarity, depth, and detail of their writing. Both groups wrote responses to the same prompt twice. The focus group did an integrated art activity before their second writing session. The control group did not do an integrated art activity. The researcher observed the students during the writing process, and their behavior and level of engagement was recorded. Both groups responded to surveys after each writing session. Their compositions were scored using a rubric that measured their clarity, depth, and detail. A four-point scale was used where four was the highest and one was the lowest possible score. A score of level 4 is similar to coursework that is given a grade of A and level 1 is similar to coursework that is graded a D. The average writing scores and tallied survey responses from each session, and from each group were compared.

Significance of the Study

This study exhibits confirmatory significance of the effectiveness of art integration activities on high school aged students' literacy. In order to strengthen the validity of the results, triangulation was used to determine the strength of evidence used to support the findings. The results of a focus group were compared with the results from a control group. Survey responses were compared between the first and second writing sessions, and trends were compared between the focus group and the control group. The writing samples were not scored blindly, meaning the researcher was aware which ones were written by the control group and which ones were written by the focus group however, rubrics were used to score the student writing samples in order to limit bias.

Neither the researcher nor the teacher gave instruction beyond basic clarifications of the assigned tasks in order to limit the chances that students' choices in terms of how they completed the writing and drawing tasks would be influenced by the teachers' and researchers' biases.

The results of the surveys in this study suggest that most people are visual thinkers, even if they do not consider themselves to be artists. This means that when most people are thinking up ideas to write about, their ideas present themselves as mental pictures. Additionally, drawing is an activity that most people find to be more comfortable to engage in than writing, and traditional text-based brainstorming techniques. Another finding showed that some people like to doodle when they are bored. This shows how accessible and comfortable it is to do, even for people who do not describe themselves as artists. When writers use drawing as a tool, the clarity, depth, and detail of their writing appears to improve to a greater extent than it does when mind maps and graphic organizers are used.

The study's results are consistent with the findings of past studies. Integrated art activities help students to improve their writing skills. Although skills in drawing make it easier for students to express their ideas visually, improvement in student writing can occur when the student has limited drawing skills. Because students who cannot draw well are often self-conscious about the end product they produce, it is important to foster a climate in which the content of the end product is emphasized over its aesthetic or technical level to limit students' feelings of inadequacy or fear of failure. Past studies have focused on the impact of art integration on literacy at the elementary and middle school levels. They included extensive interactions between the teachers and the students

and involved elementary and middle school aged participants (Oster, 1993; Paquette, Fello, Jalogo, 2007; Albers, P. 1997; Gamwell, 2005; Dyson, 1990; Bitz, 2004; Frey & Fisher, 2010; Leigh, 2010; Andrzejczak, Trainin, & Poldberg, 2005; Handerman, 1993; Morrison, Bryan, & Chilcoat, 2002; Barton, Sawyer, & Swanson, 2007). This study demonstrates the effectiveness of integrated art activities at the high school level, and by extension, their validity in all grades including post-secondary studies.

The study's results, which suggest that integrated art activities improve students' ability to write with clarity, depth, and detail and the researcher's hypotheses about their meaning could be used to inform the methods teachers and other curriculum and lesson plan designers. It could also be used as evidence to defend the validity and essential nature of art within the curriculum. In the current climate, funding for art programs is being cut and in some cases, eliminated altogether. The results of this study could help change educational policies and funding priorities in two ways. First, it could emphasize integration of drawing and art activities that use visual expression as a means of demonstrating subject matter knowledge and understanding in core subject areas. Second, by extension, it could boost funding for dedicated Art courses that would teach fundamental skills such as drawing and visual expression to enhance the ways that students are able to use art as a thinking and communication tool in core subject areas.

Bias and Validity

The growing body of research that supports the effectiveness of arts integration on student achievement, and the researcher's strength in the area of visual conceptualization and communication grounded her hypothesis that the integrated art activity would effectively increase students' abilities to write with greater clarity, depth and detail. The

researcher's personal strengths in the area of visual communication and learning also contributed to this belief. In order to strengthen the validity of the results and lessen the effects of her biases, she used both a focus group that engaged in an integrated art activity and a control group who did not. This enabled the researcher to triangulate her analysis. She used the scoring rubric when evaluating each student's work to ensure that the scores were assigned as accurately as possible. The interactions between the researcher and the students were limited to general explanations and clarifications of the tasks the students were expected to complete. No further guidance was offered or suggested. The students' teachers, who were present during their class's sessions also restricted their interactions with students to general explanations and clarifications of the tasks. This enabled the researcher to prevent herself and the students' teachers from biased interactions, which may have influenced any of the writing, cognitive, creative, or behavioral choices (apart from those which caused disruptions) that the students made.

Analysis Procedure

The researcher analyzed the data from the students' writing and survey results. The focus and control group's writing was in response to the prompt "Home is not where you live; it's where they understand you" twice. The focus group completed an integrated drawing activity before they wrote their written responses the second time. The control group responded to the same prompt twice as well, except they did not participate in an integrated drawing activity. Both groups answered multiple-choice surveys at the end of each writing section (See Appendices C to F). This enabled the researcher to compare the students' progress using their own work as a point of comparison. A sampling of ten students from each group was randomly selected for analysis. The students in both

groups were assigned pseudonyms. The focus group students were named Students 1 through 10 and the control group students were named Students A through J.

Once the student writing samples had been scored using the rubric (see Appendix G) and their survey responses had been tabulated, the researcher checked for patterns in the data that indicated the effect the integrated drawing activity had on the clarity, depth, and detail of the students' writing. The rubric assigned 4 as the highest score, indicating advanced proficiency, and 1 as the lowest score, indicating low proficiency. The researcher's primary method of triangulation was comparing the change in the average scores of the focus group's writing between the first and second sessions with that of the control group. She also compared each groups' survey responses to questions between the first and second writing sessions. The researcher analyzed the similarities and differences between the tallied survey responses between the two groups. Following this, she compared the information communicated in the focus group's drawings with the ideas conveyed in their writing to determine if the drawings enabled students to impart ideas they could not reveal in writing. The researcher noted that students in the control group doodled during the writing session. She added a question to their survey after the second writing session asking them if they doodled and if so, why (e.g. because they were bored or to help them with their writing).

Findings Report

Primary Findings

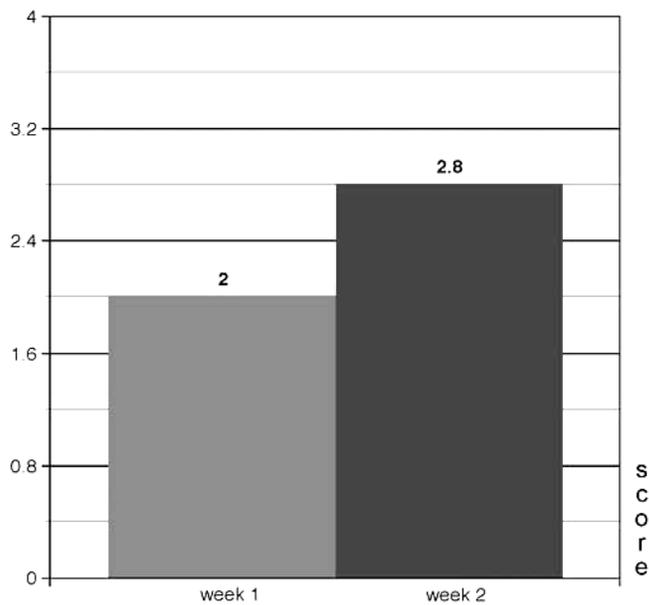
Although no formal instruction or guidance was given, the focus group's average scores consistently improved in the three categories of clarity, depth, and detail, after they completed the integrated drawing activity. The control group's average scores declined.

The decline of the control group's scores suggests students were less engaged when they completed the writing task for the second time. This is supported by the researcher's observations that on average, the students in the control class stopped writing and checked out of the writing task sooner during the second session than they did during the first writing session. She hypothesizes that this is related to the fact that they did engage in the integrated art project, and as a result, became less engaged and less motivated.

Clarity.

The first criteria the researcher analyzed in order to measure the effect of the integrated art activity on student writing is clarity. The integrated drawing assignment improved the average scores of the focus group's writing by of 2.8 points in their second writing sample. (see Figure 1).

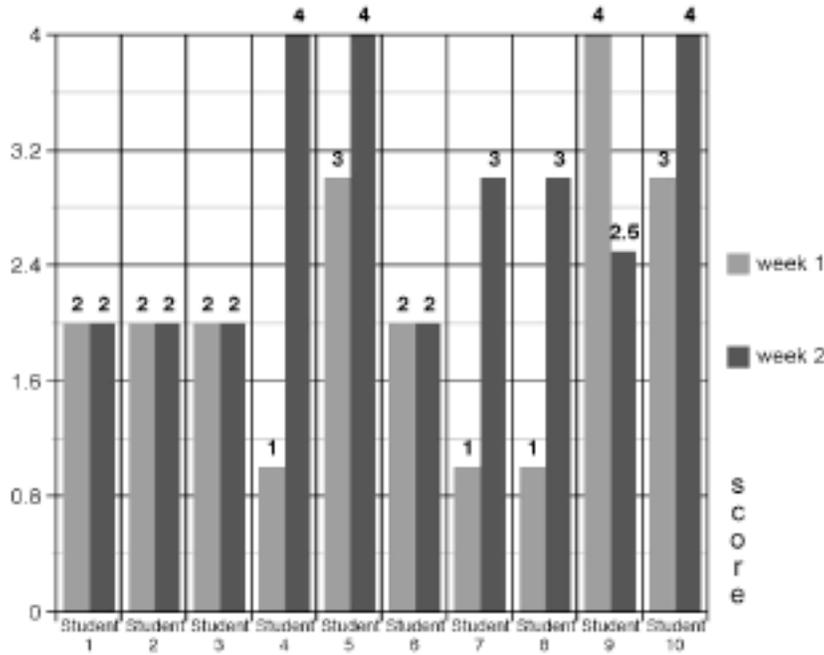
Figure 1. Average focus group scores for clarity in weeks 1 and 2



Of the three writing criteria measured, clarity improved the most. This suggests that when students translate the ideas in their minds into concrete images on paper, they have an easier time explaining and expressing them.

In looking at the level of clarity over the course of two weeks, half of the focus group's scores improved, 40% remained the same, and one student's score decreased. Students whose scores improved increased their level of achievement, between one and two points (see Figure 2).

Figure 2. Focus group scores for clarity in weeks 1 and 2



If the scores of only the students whose writing increased are calculated, the focus group's average improvement is 1.5 points. Although four of the ten students' scores did not change, in 75% of these cases, their images revealed more information than they were able to communicate in writing (see Figures 3-9).

Figure 3. Focus Group Student 1 Week 2 Art



Figure 4. Focus Group Student 1 week 2 writing sample.

Home is not where you live but where they understand
 I agree and disagree (don't know if i ~~can do that~~
~~can do that~~) because home is ~~not~~ where you
 live and also "they" understand you. Home is where you
 live but "they" may not understand you. Depends on
 who "they" are.

Student 1's drawing is labeled "Shelter" and it represents shelter in the literal sense. The researcher hypothesizes this could have been elaborated on both literally and figuratively and tied in with his vague statement about his definition of home in relationship to being understood depending on who "they" are.

Student 2's drawing contains a very clearly communicated story about how his homes have changed as his family emigrated from Pakistan to "Germann" to Canada, (see Figure 5) which is absent in his writing (see Figure 6).

Figure 5. Focus Group Week 2 Student 2 artwork.



Figure 6. Focus Group Week 2 Student 2 writing sample.

Home is not where you live but where they understand you.

For me: Home is the Place where my family is, because they understand me. ~~And~~ school becomes to feel like its home, because people start knowing you and understand you the way you are.

In his drawing, he identifies Canada as his home because as he writes “My home is where I have my family” whereas Pakistan is “unknown to me” (see Figure 5).

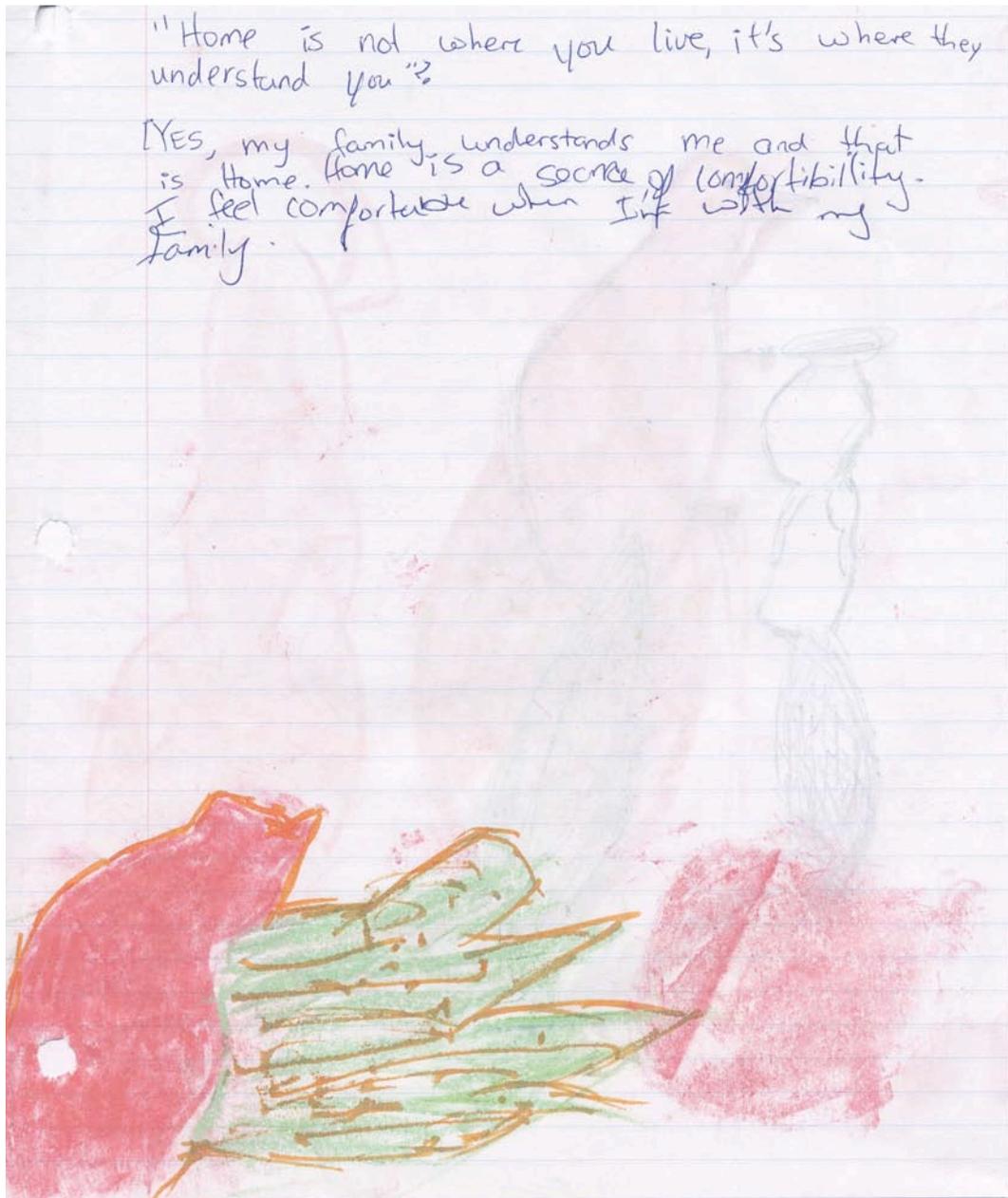
Student 3’s drawing from the integrated art session is very literal (Figure 7).

Figure 7. Focus Group Week 2 Student 3 artwork.



It shows his home, his family, and items from his home that appear to be significant to him such as his bed, labeled "My bed!" a television labeled "TV" and a desktop computer, which is also labeled. During the writing session, Student 3 continued to draw, this time on lined paper he was given to write on. There is an additional drawing at the bottom of the page and another on the reverse (see Figures 8 and 9).

Figure 8. Focus Group Student 3 Week 2



The student was trying to draw a bird. When the researcher asked him why he was drawing birds he explained: "birds stick together like family". In his drawing from the integrated art activity, his caption "Family is home" further clarifies the ideas expressed in his writing, and birds he drew do so symbolically.

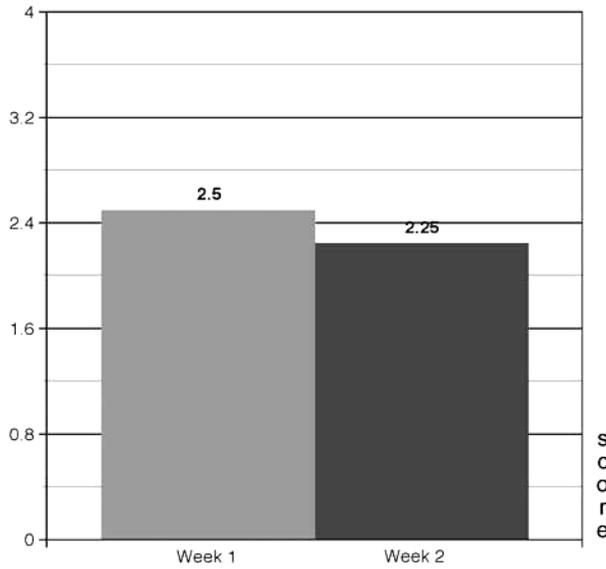
Figure 9. Focus Group Student 3 Week 2 Art On Reverse Side of Written Page.



The richness of information present in the focus group's drawings suggests that had the students in the focus group been able to conference with their teacher about their writing samples and drawings, her guidance may have improved the clarity of their writing to an even greater extent.

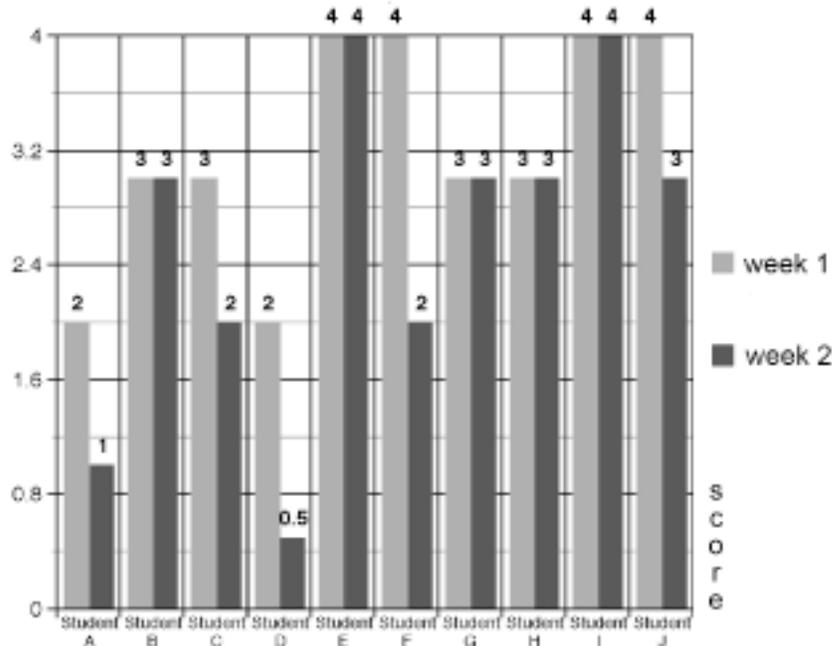
The control group's average scores for clarity decreased by 0.25 points after the second writing session (Figure 10).

Figure 10. Average control group scores for clarity in weeks 1 and 2



Although this decrease is relatively small, the researcher was not expecting their scores to decrease at all, so this finding was a surprise. She hypothesized that their work would either remain at the same level or improve by a small margin. When changes in the individual scores of the control group’s students are compared, 50% of their scores stayed the same and 50% of their scores decreased (see Figure 11).

Figure 11. Control group scores for clarity in weeks 1 and 2

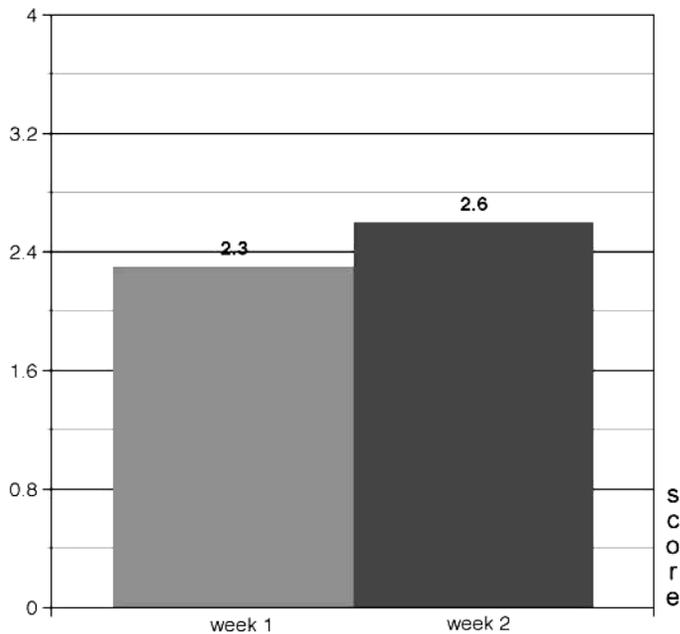


Overall, the decrease was relatively small (only one quarter of a point), however when only the students whose scores decreased are taken into account and averaged, the students' scores decreased by 1.3 points, which is a significant decrease, the equivalent of a reduction of over one full academic letter grade's such as from a B to a C. Given the fact that the focus group's clarity of writing improved, and the researcher's hypothesis that the control group's decline in clarity was due to a reduction in motivation and engagement it appears that the art activity also helped to motivate and engage the focus group in their work.

Depth.

The second criteria the researcher analyzed to measure the effect of the integrating drawing assignment on students' writing is depth. The focus group's scores for depth improved an average of 0.3 points (see Figure 12). This criterion had the lowest level of improvement of the three.

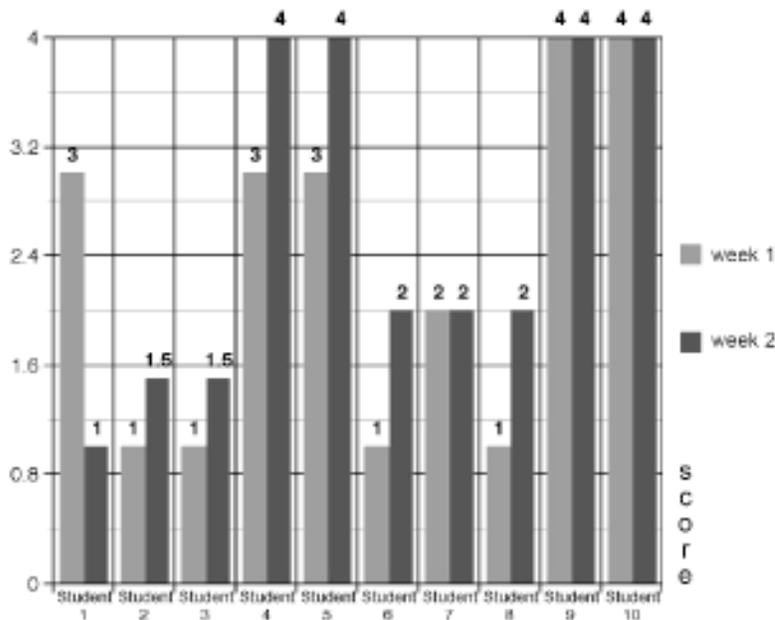
Figure 12. Average focus group scores for depth in weeks 1 and 2



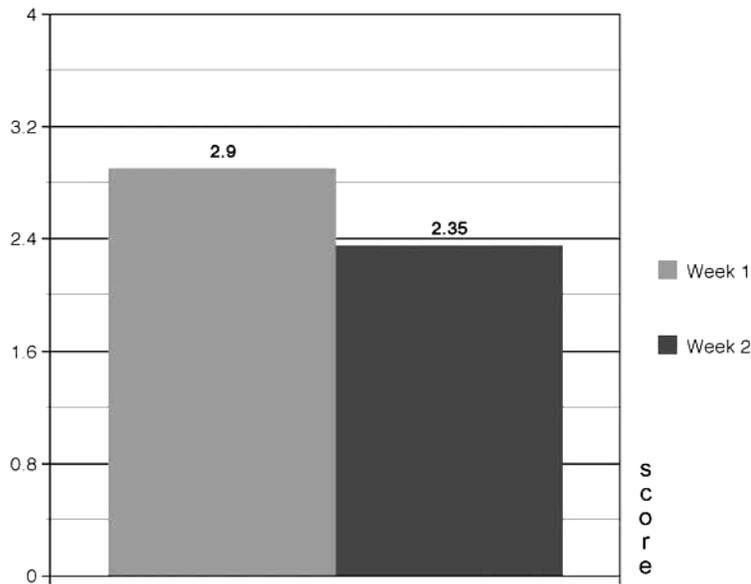
Given the fact that many of the students' drawings showed far greater depth than their writing samples (as seen in Figures 3, 7, 8 and 9), the researcher hypothesizes that teacher conferences with the students would have enabled them to raise their scores more dramatically.

Overall, 60% of the focus group's scores for depth improved. Of those who did not show improvement one student's score decreased by two points. Two of three students whose scores did not change achieved level 4, the highest score in their first writing samples (see Figure 13).

Figure 13. Focus group scores for depth in weeks 1 and 2



Consistent with the downward trend in their average scores for clarity, the control group's scores for depth decreased by an average of 0.55 points (see Figure 14).

Figure 14. Average control group scores for depth in weeks 1 and 2

The researcher hypothesizes that this was due to the students' reduced motivation and engagement in their writing. It was not possible to survey any of the control students after their writing had been scored to find out why the students think the scores might have declined. Based on their survey responses after the second writing session, half the control students thought their scores stayed the same, 30% thought their scores improved and only 20% thought their scores declined (see Table 1).

Table 1

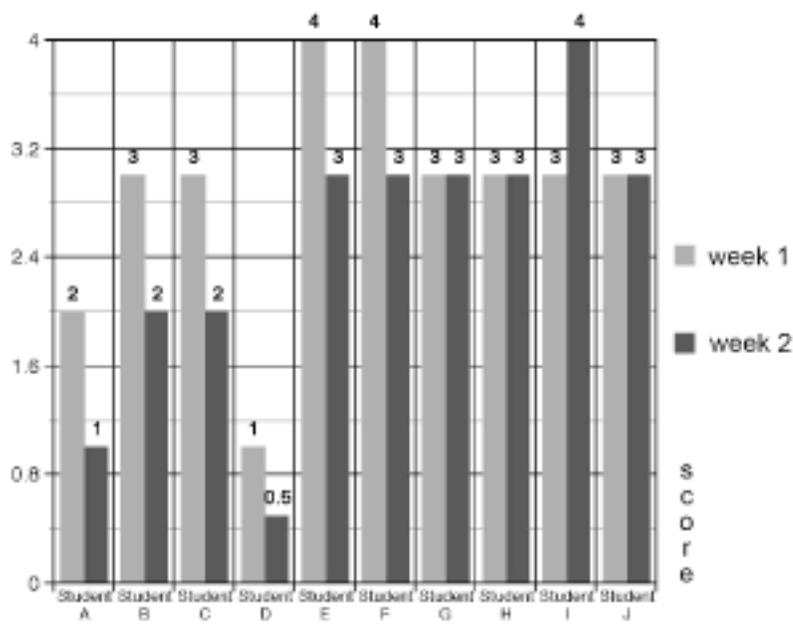
Control and Focus Groups' perceptions of the change in their writing

Control Group	Compare today's writing to last week's	Focus Group	Compare today's writing to last week's
Student A	Same	Student 1	Better
Student B	Better	Student 2	Same
Student C	Same	Student 3	Same
Student D	Worse	Student 4	Worse
Student E	Worse	Student 5	Better
Student F	Same	Student 6	Same
Student G	Better	Student 7	Same
Student H	Same	Student 8	Same
Student I	Same	Student 9	Better
Student J	Better	Student 10	Better

Similarly, half of the focus students thought their scores were the same, 40% of the focus students thought their scores improved, and only 10% thought their scores declined.

Metacognition is not emphasized in the curriculum or practiced as a thinking skill. The researcher hypothesizes that for this reason, the validity of this data is limited. The overview of the individual students in the control class's scores in weeks one and two (see Figure 15)

Figure 15. Control group scores for depth in weeks 1 and 2



shows that 60% of the students in this group wrote with less depth in the second writing session. Only one of the ten students' scores for depth improved. The consistency of this trend further supports the researcher's hypothesis that the control class was less engaged during the second writing session as well as less motivated.

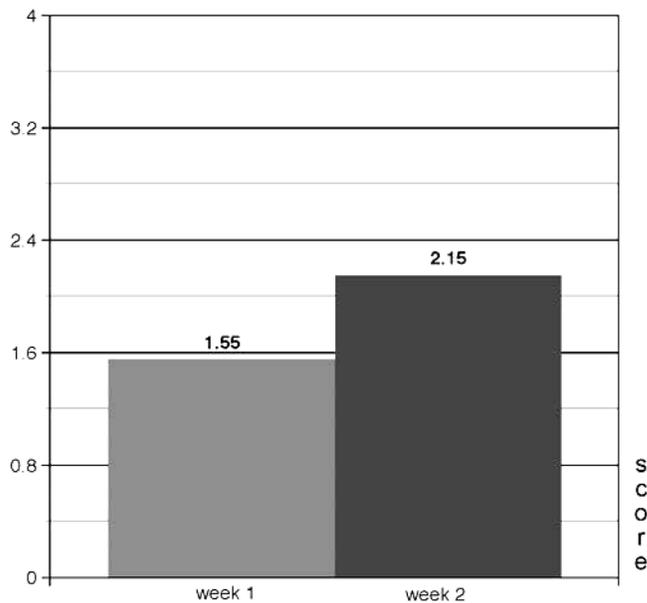
Since this is the second time the students were asked to write this assignment the researcher believes its content and expectations should have been clearer to students than it was during the first session. Given the fact that no grades or other incentives were

offered in order to induce them to work hard on it, they researcher hypothesizes that either most students felt there was no need to invest their focus and energy in or students were too bored with the topic and/or the task to write to their full potential. There is some support for this. As discussed in the secondary findings of this paper, according to their survey results, 40% of the students in the class doodled during the writing session doodled because they were bored.

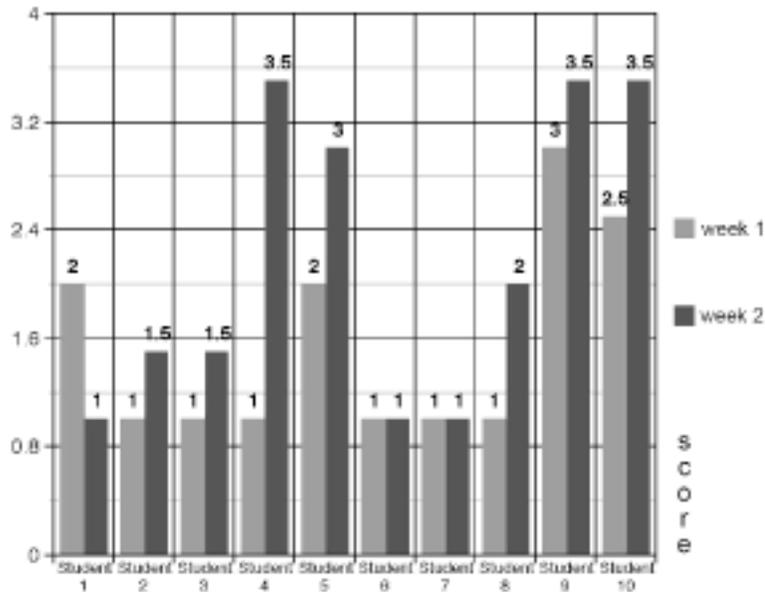
Detail.

The average scores in the focus group in the category of detail rose 0.6 points (see Figure 16) after the integrated drawing activity.

Figure 16. Average focus group scores for detail in weeks 1 and 2



Although this was by far, the weakest category for evaluation, this category had the second highest improvement. The individual students' scores from the second writing session indicate that 70% of students' scores increased (see Figure 17).

Figure 17. Focus group scores for detail in weeks 1 and 2

If only the students whose scores improved are averaged, the margin of improvement is over 1.16 points, which using the A, B, C, D grading scale used on many school report cards, is equivalent to more than one and a half grades' improvement. This is a significant increase and reflects the effectiveness of the integrated drawing activity on students' ability to write with more detail. None of the students in the focus group and the control group achieved level four for the criteria of detail. Level four required students to use literary devices such as figures of speech to enhance the detail of their writing. One of the ten students' scores decreased. The scores of the two students, who were the weakest in the class based on their overall scores during this study, did not.

There is rich expressive information in the focus students' artwork, drawn in response to the quote. In some cases, metaphoric ideas, exemplified in student 3's (see Figures 8 and 9) and Student 9's (see Figure 18) work is present.

Figure 8. Focus Group Student 3 Week 2

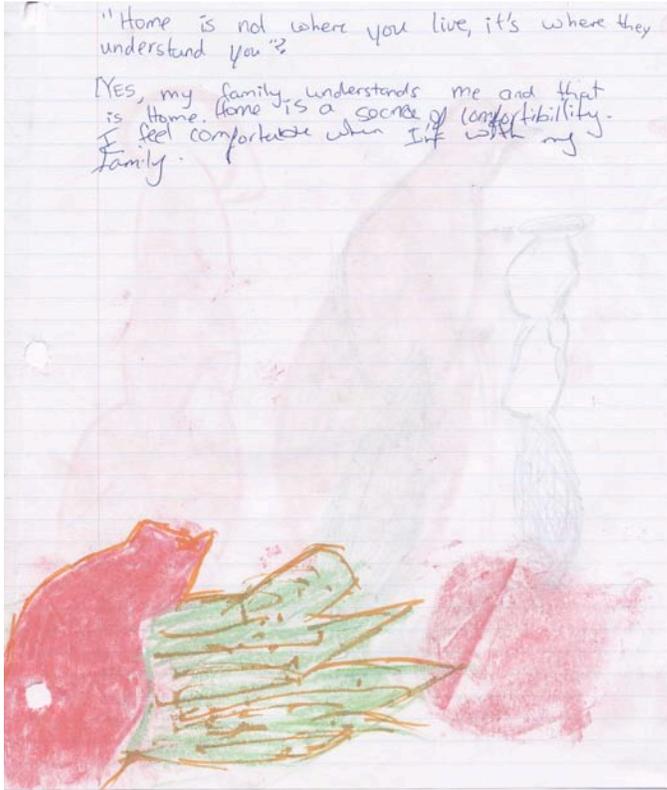


Figure 9. Focus Group Student 3 Week 2 Art On Reverse Side of Written Page.



Figure 18. Student 9 week 2 artwork.

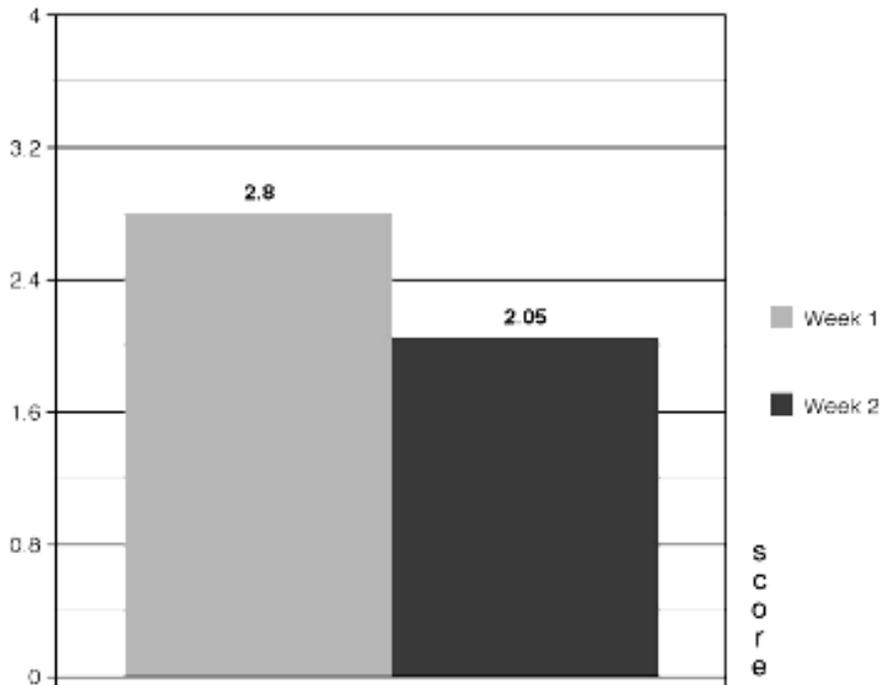


In the case of student 3, the birds were symbols for family because as he explained “they stick together like family”. Student 9’s powerful rendering of a tornado and what appears to be a stick figure of a human amidst the chaos inside a square floating in the tornado could be mined for its rich imagery and symbolic meanings (see Figure 18). The researcher believes that if the students were able to conference with their teacher about the content of these drawings, the students could be shown how to include figurative language devices in their writing based on the ideas they expressed in their drawings. She further hypothesizes that the experience of doing so could lead to future instances

when they would be able to glean ideas for literary devices and other means of adding detail to their writing from their pictures independent of outside help.

The downward trend of students' scores in the control group, exhibited in the categories of clarity and depth was also consistent in their scores for detail. Average scores declined by 0.75 points (see Figure 19).

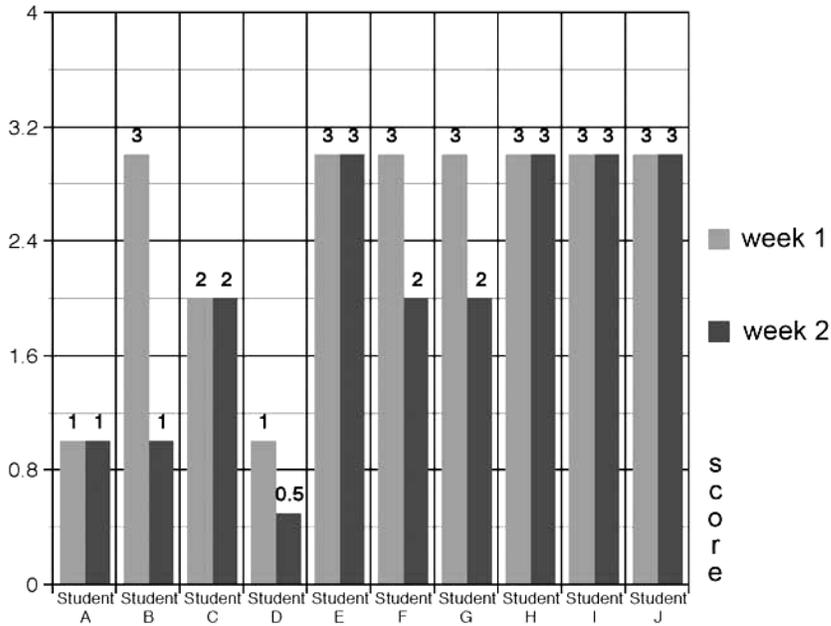
Figure 19. Average control group scores for detail in weeks 1 and 2



This is a significant level of decline. Like the decline in scores for clarity and depth, it suggests that the students in the control group were less engaged in the task and motivated to work hard to be successful at it.

When the students' individual scores are analyzed, 60% of the students' scores stayed the same, and 40% decreased by between 0.5 and 2 points (see Figure 20).

Figure 20. Control group scores for detail in weeks 1 and 2



This incidence of decline is a significant drop, particularly when it is compared to the incidence of improvement in the focus group's writing.

If only the students whose scores declined are considered, the control group's scores diminished by 1.125 points. None of the control students' achieved scores higher than 3 on their writing. The highest scores for detail in the control group from both the first and second sessions are 0.5 points lower than the highest scores in the focus group's second session. This suggests that the integrated drawing activity was not only effective in raising the focus groups' scores compared to what they achieved in the first session. It also enabled them to write with greater depth than the control group who did not complete an integrated art activity.

The effectiveness of the integrated drawing activity may be attributed to the fact that enables students to bridge what would normally be a significant gap in what could be described as the nested degrees of abstraction a student must move through in order to

successfully translate his or her thoughts into words. The researcher model is based on one by astrophysicist, de Grasse Tyson (2007). De Grasse Tyson outlines five nested levels of abstraction that an astrophysicist must be able to move through in order to calculate how quickly a star is receding from earth:

Level 0: Star

Level 1: Picture of a star

Level 2: Light from the picture of a star

Level 3: Spectrum from the light from the picture of a star

Level 4: Patterns of lines lacing the spectrum from the light from the picture of the star

Level 5: Shifts in the patterns of lines in the spectrum from the light from the picture of the star (loc 2023)

The researcher's five nested levels of abstraction for writing are as follows:

Level 0: The thoughts and ideas in the writer's head

Level 1: A photographic image of the thoughts in the writer's head (impossible to obtain, at least at the present time)

Level 2: A drawing created by the student of the ideas in the writer's head

Level 3: A graphic organizer or mind map of the ideas in the writer's head

Level 4: An outline of the paper they intend to write based not the ideas in the writer's head

Level 5: the paper they write based on the ideas in the writer's head

The researcher hypothesizes that most writers can't move from level 0 to level 3 or 4, skipping over levels 1 and 2 and produce strong work. If they do, they are at risk of getting stuck, and giving up. If they continue to try, they are likely to produce writing that is beneath their potential. The researcher believes the concreteness of the artwork makes it easier for students to express them at higher levels of abstraction.

Attitudes toward writing.

The survey responses indicate that the focus group's enjoyment of writing improved after they completed the integrated drawing assignment. Only 40% of the group said they enjoyed writing after the first session. This number jumped to 70% after the integrated drawing activity and writing session. The focus group's survey responses to the question asking them if they enjoyed writing remained the same. Although two students changed their answers (Student 6 from no to yes, and Student 9 from yes to no), after both sessions, only 30% of the control students indicated they enjoyed writing (see Table 2).

Table 2

Survey Results: Students Who Enjoy Writing

Focus Group	Do you enjoy writing?		Control Group	Do you enjoy writing?	
	Week 1	Week 2		Week 1	Week 2
Student 1	Yes	No answer	Student A	No	No
Student 2	Yes	Yes	Student B	Yes	Yes
Student 3	No	Yes	Student C	No	No
Student 4	No	No	Student D	No answer	No
Student 5	Yes	Yes	Student E	No	No
Student 6	Yes	Yes	Student F	No	Yes
Student 7	No	Yes	Student G	No	No
Student 8	No answer	Yes	Student H	No	No
Student 9	No answer	No answer	Student I	Yes	No
Student 10	No answer	Yes	Student J	Yes	Yes

Studies suggest that when the formality of learning proves itself to be too challenging for student, their potential for development may be inhibited by feelings of failure (Sharp, 2002 as cited in Walsh and Gardner, 2005). The 30% increase in the number of students in the focus group who said they enjoy writing after the integrated art activity and the second writing session suggests that the drawing activity was helpful in lessening formality of the task and by extension, increasing their enjoyment of it. This is further supported by increase in the focus groups' average scores in the clarity, depth, and detail of their writing. The decline of the control group's scores in the clarity depth, and detail of their writing and their consistently low levels of enjoyment when writing support the researcher's hypothesis that the formality of writing without the integrated art activity disengaged the students and lowered their motivation and work ethic.

Secondary Findings

The researcher observed students in both the focus and control groups drawing and doodling during the second writing session. This is significant in light of this study because traditionally, doodles are discouraged on tests and written compositions. The papers given to students for rough work are meant for more traditional methods of planning such as mind maps, graphic organizers, and outlines. These techniques are taught and required as a part of the essay writing process in English classrooms throughout the K-12 curriculum. Student 9, a member of the focus group was the only participant in both groups who used a mind map before she began writing in the first session. She did not use one during the second session. She referred to her artwork and added to it as she wrote. In her survey responses, she said she thinks in pictures.

Doodling and drawing during the writing session.

Students in both the focus group and the control group drew during the writing session. The researcher observed 30% of the focus group students adding to their drawings they created during the integrated art activity designed to help them. In their survey responses after the second writing session, 60% of students in the focus group said they referred to their artwork while they wrote. The researcher observed 70% of the students pausing from writing to look at their artwork before returning to their writing (see Table 3).

Table 3

Focus group students who referred to and/or added to their artwork during the second writing session

Pseudonym	Referred to their artwork when writing		Drew during the writing session	Survey response: Thoughts for writing are mainly in the form of
	Survey response	Researcher's observation		
Student 1	No	No	No	Words
Student 2	Yes	Yes	No	Pictures
Student 3	Yes	Yes	Yes	Pictures
Student 4	No	Yes	Yes	Pictures
Student 5	No	No	No	Words
Student 6	Yes	Yes	No	Pictures
Student 7	No	No	No	Pictures
Student 8	Yes	Yes	No	Pictures
Student 9	Yes	Yes	Yes	Pictures
Student 10	Yes	Yes	No	Pictures

Given the reluctance of students to voluntarily use traditional methods of brainstorming ideas such as mind maps, their choice to voluntarily use the drawings (doing so was optional during the writing session) suggests that they found them to be a comfortable tool to use. This is further supported by the fact that 30% of the students chose to add to

their drawings without guidance or encouragement from either the researcher or their teacher to do so.

The behavior and scored improvement in the focus group's writing suggests that extending opportunities to use drawing to express ideas during writing sessions is also effective. A limitation of the effectiveness of drawing may be hypothesized in students whose survey responses and behavior indicate that they are not strong visual thinkers. When analyzed for a pattern that confirms this, the researcher's data is inconclusive. Of the students who do not appear to be strong visual thinkers, Student 1's scores declined after the intergraded writing activity, but Student 5's scores improved.

Half of the students in the control group doodled during the second writing session. One of the five students said he used drawing as a means to think of ideas to write about (see Table 4).

Table 4

Survey Results: Control Group Students Who Doodled During the Second Writing Session

Control Group	Did you doodle during the writing session?	Why did you doodle?	Thoughts for writing are mainly in the form of
Student A	Yes	I was bored	Words
Student B	No	N/a	Words
Student C	Yes	I was bored	Pictures
Student D	Yes	I was bored	No answer
Student E	No	N/a	Pictures
Student F	No	N/a	Pictures
Student G	No	N/a	Words
Student H	Yes	To think of ideas	Pictures
Student I	No	N/a	Pictures and sounds
Student J	Yes	I was bored	Pictures

The high incidence of spontaneous, elective doodling observed in the control class regardless of whether the students described their thoughts as mainly pictorial (as

opposed to word-based, or sound-based) suggests that the accessibility and degree of pleasure experienced from the act of drawing is not limited to self-described visual thinkers.

The remaining four students said they drew because they were bored. When the researcher observed them doodling, they tried to hide their work from her by covering it with their hands or turning the page over so it was out of view. This behavior reflects the academic bias that does not consider doodling to be a productive, academic use of one's time and is not appropriate for inclusion in academic or scholarly work. Students' fear of reprimand for drawing and doodling when they are expected to be writing and their belief that doing so is wrong and inappropriate may suggest why few students experiment with doodling while writing. The recent emergence of scholarly recognition of arts-based research (Graeme, 2010) suggests that this bias and consequential fear of reprimand on the part of students is unfounded and needs to be re-examined.

The fact that one student from the control group doodled to try to think of ideas for their writing despite the obstacles outlined above suggests that traditional biases against doodling and drawing when one is supposed to be writing need to be re-examined. This bias against doodling is an extension of the overall educational climate and policies that favor writing and devalue art, as seen in the decline in funding for arts education and the low level of priority it is given in curriculum development and implementation. Given this, the larger bias that devalues art in general needs to be re-examined as well.

Modes of conceptualization of ideas.

After the second writing session, students were asked if they thought of words, pictures, sounds, or movements when they conceptualized ideas for their writing. 80% of the focus group and 60% of the control group indicated that their thoughts for writing are mainly in the form of pictures (see Table 5).

Table 5

Comparison of Survey Results: Form of student's thoughts when writing

Focus Group	Thoughts for writing are mainly in the form of	Control Group	Thoughts for writing are mainly in the form of
Student 1	Words	Student A	Words
Student 2	Pictures	Student B	Words
Student 3	Pictures	Student C	Pictures
Student 4	Pictures	Student D	No answer
Student 5	Words	Student E	Pictures
Student 6	Pictures	Student F	Pictures
Student 7	Pictures	Student G	Words
Student 8	Pictures	Student H	Pictures
Student 9	Pictures	Student I	Pictures and sounds
Student 10	Pictures	Student J	Pictures

The focus group's students were all enrolled in an elective art class. Because the control group's students were all enrolled in a mandatory English class, it is possible that the control group's responses provide a more accurate sample of the general population, since it is likely that students who gravitate to art would have a tendency to be visual thinkers. The dominance of visual thinking in both the control group and the focus group supports the researcher's hypothesis that an integrated art-based activity would be an effective tool for students to better translate their ideas into writing. Drawing can act as a way for students to record their ideas concretely and then use this record as a reference when writing. Her hypothesis is further strengthened with these findings are combined with the evidence that a high number of students in the focus group referred to their

drawings while they wrote and even added to them, and the fact that half the students in the control group doodled even though doodling was not required of them, and may even have been perceived as a forbidden or inappropriate activity.

The fact that 90% of the students in the study did not use traditional methods of brainstorming such as mind maps, and outlines before they began writing suggests they do not find these methods to be helpful or comfortable to use. This study reveals that they abandon them when they are not required to use them. It also demonstrates that many students enjoy doodling and drawing and will voluntarily partake in this whether they are asked to by the teacher or not, regardless of whether they consider themselves to be artistic. Additionally, the study's evidence shows that most students conceptualize their ideas in mental pictures as opposed to words. This aligns with Schooler's (as cited in Gladwell, 2005) research on verbal overshadowing (loc. 1571), which is the thinking process that prevents one from clearly translating non-language based thoughts such as mental pictures into an abstract form such as spoken words. As writing is yet another level of abstraction from spoken words, the writer must be able to communicate his or her ideas two levels of abstraction away from the original concept. The ideas become less clear, and the task of writing becomes even more difficult.

Summary

Through her analysis of the writing, surveys, behavior, and artwork of the students in this study, the researcher believes she has a foundation of evidence that supports the effectiveness of an integrated art activity on the clarity, depth, and detail of student writing. This can be used to help educators of students in all subject areas and all

grade levels to improve their ability to conceptualize ideas and translate them into writing.

The mild to moderate improvement in the clarity, depth, and detail of student writing in the focus group and a mild to moderate decline in these areas in the control group may have been different had there been opportunities for the researcher to give students verbal and/or written feedback on their writing and drawings. Given the richness of information and ideas contained in the students' drawings, guidance and feedback from the researcher or their teacher may have resulted in improvements far higher than those in this study. Although the control group's scores may also have risen if they had been given feedback and guidance on their writing, the researcher hypothesizes that the gains in scores would still have been higher in the focus group than the control group. This is due to the increase in the number of students who reported they enjoyed writing after the integrated art activity, and the richness of the ideas, and information communicated in their drawings. The researcher will incorporate the results and hypotheses gleaned from this study in her future practice when teaching students how to write.

The findings in this study support the potential for integrated art activities to help improve student literacy. They are not intended to suggest that art integration should replace standalone art courses; rather that art should be extended into academic instructional areas. All subjects require writing skills to communicate knowledge and understanding and as a result, writing is graded and often taught in courses other than those dedicated to Language Arts. This study demonstrates the effectiveness of drawing as a thinking and conceptualization tool, which enables to students to communicate ideas

more clearly than they can in writing. It also enables students to communicate ideas they are unable to translate into writing at all either because their limited literacy skills form a barrier to their success or their ideas are more effectively communicated visually

Chapter five will interpret the findings reported in Chapter four and draw conclusions from them.

CHAPTER FIVE: CONCLUSION

This qualitative study was conducted to test the effects of an integrated drawing activity on the clarity, depth, and detail of student writing. This chapter reviews and summarizes the key findings from the study. It outlines the impact of the findings on the researcher's philosophical and practical understandings and methodologies. All educators who wish to improve students' ability to write with clarity, depth and detail can benefit from the results the researcher has uncovered.

Personal Impact of the Study

When the researcher compared the scope of information and ideas the students communicated in their drawings to those they expressed in their writing, it became apparent that the drawings communicated thoughts and ideas not present in their compositions. Similarly, their written texts expressed thoughts and ideas not present in their drawings. This has led the researcher to hypothesize that writing is one part of a broad spectrum of different modes of conveying ideas and information. Just as visible light is the only part of the electromagnetic spectrum that can be seen with the human eye, spoken and written language are for the most part, the only parts of the communication spectrum that is visible in the school system. This is significant because when only visible light is used to understand the properties of the world and universe that surrounds us, we are blind to vital information and can be tricked into false assumptions about it. Similarly, when only spoken and written languages are used to assess student knowledge and understanding, a trove of ideas and thoughts are invisible to teachers when they are conferencing with students or assessing their work. The researcher

hypothesizes that enabling students to express their thoughts and ideas through additional modes such as music and movement would yield more otherwise invisible information.

Gardner's (2008/1993) theory of multiple intelligences suggests that individuals are often more comfortable expressing their ideas visually or linguistically, musically, or kinesthetically. The researcher's hypothesis is not meant to compete with Gardner's theory; it is meant to extend the meaning of multiple intelligences and their impact on humankind's ability to exchange thoughts and ideas with each other. She will use the results of the study in both her English and Art classrooms to extend the spectrum of communication students are able to use to demonstrate their knowledge and to help record and organize their ideas.

Rationale for the Unit

The unit "Home is not where you live but where they understand you." (see Appendix H) is designed to empower students to use drawing as a means of brainstorming their thoughts and feelings about what home means to them that they might otherwise struggle to express in writing.

Home can be as much of a psychological locale as a physical one. According to Ball and Lai (2006) the critical perspective of place-based education includes "teaching and learning of critical tools for understanding and generating mechanisms for larger-than-local socioecological transformation" (p. 270). Many of the low-income communities and structures that at-risk students live in are dangerous, unwelcoming spaces, where they feel trapped. This is often caused by a combination of the design of the built environment their community is situated in and the social construct created by the cultural leaders of the community.

It is critical for students to reflect on this social and physical construct and evaluate how it may be helping or hindering them from achieving their goals and dreams. If students are able to become more aware of how their environment shapes them and its relationship to the person they are and are evolving to become, they may be able to overcome the obstacles that the environment sets in their way. Knowledge and understanding of the effect their community has on their perceptions of themselves and the world may empower them to work towards positive change in their community. In doing so, they can not only feel more connected to the environment they live in, but also help to transform and improve it.

Recommendations

This study has demonstrated that many of the ideas writers have in mind when they conceptualize their writing tasks is lost when they translate them into written language. The focus groups' drawings reveal a trove of ideas not present in their writing. Future repetitions of this study could add a third step to the writing process where the teacher conferences with the students about their writing. In the case of the focus group, their drawings would be discussed during these conferences whereas the control group would rely strictly on what they could communicate verbally and in writing. The purpose would be to determine the effect of the drawings on their writing when they are used as tools in conferences with the teachers compared to conferences that did not include images created by the students.

The researcher hypothesizes that anthropological and archeological evidence may support her theory that thoughts and ideas are more easily expressed pictorially than in writing. Cave paintings and sculptures are the earliest forms of communication found to

date. Early written language was often based on pictographs designed to represent the objects they symbolized. Subsequent alphabets were progressively abstracted versions of these symbols. Given this, the researcher hypothesizes that from an evolutionary perspective, non-abstract written communication is the easiest and most accessible to us both to read and to create.

The researcher suggests that the examination of anthropological studies on the development and evolution of written language may enhance understanding of the cognitive skills and development needed for mastery of written language. Charles Saunders Pierce (as cited in Rossano, 2010) theorized that semiotic communication evolved from icons. For example: a pebble symbolizes a ball is an example of an icon. The next level of abstraction is called an index such as when smoke symbolizes fire. Symbols are the highest and most abstract level of writing. An example of a symbol is the \$. The \$ has no visual relationship to what money is or means. The same is true of the letters in Indo-European languages' alphabets. Sophisticated spoken and written language skills require an ability to communicate entirely in symbols which do not have a concrete correlation with their meaning. This is appears to be where many of the students in the researcher's study seem to have gotten stuck. They were not short of ideas of what to say, as indicated in their drawings: rather they lacked mastery in the skill of using symbol-to-symbol reference system needed to express them in writing.

The results from this study could be used to pilot further research in this area. The pictographic brainstorming technique used in this study could be introduced to teachers in all curricular areas at all educational levels in professional development workshops and

“best practices” segments of staff meetings. Teachers could then have struggling writers use it as a tool to help them share their ideas and translate them into writing.

Summary

The results of this study suggest that integrated drawing activities are effective tools for helping students improve the clarity, depth, and detail of their writing. The researcher hypothesizes that this may be attributed the fact that drawing is a more concrete and literal means of expressing ideas than written language. Theories about the evolution of written language support this. She also hypothesizes that drawing enables creators to communicate information that would otherwise be absent in writing, much the way physicists can tune their instruments to different frequencies on the electromagnetic spectrum and “see” phenomena that would otherwise be invisible. A comparison of the information communicated in the focus groups’ drawings with that contained in their writing supports this theory. The results could be used to inform future studies and as a tool for teachers to implement in their classrooms.

REFERENCES CITED

- Albers, P. (1997). Art as literacy. *Language arts*, vol. 74, no. 5 pp 338-350.
- Andrzejczak, N., Trainin, G., Poldberg, M. (2005). From image to text: Using images in the writing process. *International journal of education and the arts*. Volume 6, Number 12, 1-17.
- Armon, J, Morris, L. (2008). Integrated assessments for ell. *Science and Children*, no8, 49-53.
- Ball, E & Lai, A. (2006). Place-based pedagogy for the arts and humanities. *Pedagogy*, 6(2) 261-287.
- Barton, J, Sawyer, D, Swanson, C. (2007). They want to learn how to think: Using art to enhance comprehension. *Language Arts*, vol. 85, No. 2, 125-133.
- Bitz, M. (2004). The comic book project: The lives of urban youth. *Art Education*, 57, no 2, 33-39.
- Carroll, K.L., Tucker, J.L. Jr. (2007). *Better practice in Visual Arts education*. Reston, VA: NAEA.
- Cooper-Duffy, K, Szedia, P., Hyer, G. (2010). Teaching literacy to students with significant cognitive disabilities. *Teaching Exceptional Children*, Vol. 42, No. 3, 30-39.
- Cowan, K, Albers, P, (2006). Semiotic representations: Building complex literacy practices through the arts. *The Reading Teacher*, 60, no 2, 124-137.
- de Grasse Tyson, N. (2007). *Death by black hole* (Kindle Edition). New York, N.Y.: W.W. Norton & Company Ltd.
- Duke, N.K, Purcell-Gates, V, Hall, L.A. and Tower, C. (2006). Authentic literacy activities for developing comprehension and writing. *The reading teacher*. Vol 60 no 4 344-355.
- Dyson, A. H. (1990). Weaving possibilities: Rethinking metaphors for early literacy development. *The Reading Teacher*, Vol. 44, No. 3, 202-213.
- Frey, N., Fisher, D. (2010). Graphic novels: Composing with sequential art in high school english and history. *The NERA Journal*, Vol.45 (2), pp 9-15
- Gardner, H. (2008). *Multiple intelligences: New horizons* (Kindle Edition). New York, N.Y.:Basic Books (Originally published in 1993).

- Gamwell, P. (2005). Intermediate students' experiences with an arts-based unit: An action research. *Canadian journal of education*, 28, no. 3, pp 359-383.
- Gladwell, M. (2005) *Blink: The power of thinking without thinking* (Kindle Edition). New York N.Y.: Little Brown and Company
- Gladwell, M. (2008). *The outliers* (Kindle Edition). New York N.Y.: Little Brown and Company.
- Sullivan, G. (2010). Paradigms lost. In *Art practice as research: Inquiry in visual arts*. Thousand Oaks, CA: Sage.
- Handerman, E. C. (1993). Literacy, aesthetic education, and problem solving. *Theory into Practice*, Volume 32, Number 4, 244-251.
- Langer, J.A. (2000.). *Six features of effective instruction*. Retrieved from <http://cela.albany.edu/publication/brochure/guidelines.pdf>
- Leigh, S. R. (2010). Violent red, ogre green, and delicious white: Expanding meaning potential through media. *Language Arts*. Vol. 87, No. 4, pp 252-262.
- Maxwell, J.A. (2005). *Qualitative research design: An interactive approach* (second edition). Thousand Oaks, CA: Sage.
- Mc Cade, J. (2006). Is design a right-brain or left-brain activity? *Journal of technology education*. Vol. 17, No. 2, 72-75.
- Morrison, T. G. Bryan, G, Chilcoat, G. W. (2002). Using student-generated comic books in the classroom. *Journal of adolescent & adult literacy*, 45, no 8, 758-77.
- Oster, L. (1993). Sub-saharan africa: An interdisciplinary curriculum unit. *The English Journal*, Vol. 82, No. 4, 24-28.
- Paquette, K. R., Fello, S. E, Jalogo, M. R. (2007). The talking drawings strategy: Using primary children's illustrations and oral language to improve comprehension of expository text. *Early childhood education journal*, Vol 35, No. 1, 65 – 73).
- Reilly, M. A. (2008). Finding the right words: Art conversations and poetry. *Language Arts*, Vol. 86, No. 2, 99-107.
- Richards, A. G. (2003). Arts and academic achievement in reading: Functions and implications. *Art Education*, 56, no6, 19-23.

- Rossano, M. J. (2010). Making friends, making tools, and making symbols. *Current Anthropology*. Vol 51, supplement 1, S89-S98.
- Simpson, J.W. (1998). In J.W. Simpson, J. M. Delaney, K. L. Carroll, C. M. Hamilton, S.I. Kay, M. S. Kerlavage, L.S. Janet *Choosing to become an teacher of art. In Creating meaning through art: Teacher as choicemaker* (pp 3 – 22). Upper Saddle River, NJ: Merrill Prentice Hall.
- Stevens, K. (2002). School as studio: Learning through the arts. *Kappa Delta Pi Record* 39 no. 1, 20-23.
- The Fraser Institute. (2010). Toronto ontario academic school ranking. Retrieved from <http://ontario.compareschoolrankings.org/secondary/>
- Vygotsky, L.S. (1978). *Mind in Society*. Interaction between learning and development. Cambridge, MA: Harvard College Press
- Walsh, G., Gardner, J. (2005). Assessing the quality of early years learning environments. *Early childhood research & practice* 7.1.
- Wong, D. (1995). Challenges confronting the researcher/teacher: Conflicts of purpose and conduct. *Educational researcher*. Vol. 24, No. 3, 22-28.

Appendix A

Parental Permission Letter and Form

October 6, 2010

Dear Parent or Guardian:

I am a researcher investigating whether arts integration might have an effect on students' ability to write. The activity, which aims to scaffold students' writing through pre-visualizing in a visual art medium, is designed to be one that English teachers can use as part of the writing process and Art teachers can use to support student literacy. The goal of the research is to test teaching methods that can improve student literacy, which is essential for success in the 21st century workforce.

The External Research Review Committee of the TDSB has granted approval for this study. The school Principal has also given permission for this study to be carried out in your son/daughter's school.

Your son/daughter will be asked to complete a writing assignment on the theme "Home is not where you live but where they understand you" and survey on October 25 2010 which will take 30 minutes. The survey will ask participants to rank themselves in terms of how confident they felt about their ability to be successful in the writing task, the level of clarity of their ideas, the level of depth of their ideas, and the amount of detail they included. The survey will also ask students whether or not they enjoy writing, whether or not they enjoy art, and whether or not they feel confident expressing their ideas visually. I will observe both classes, and record field notes describing the overall behavior and engagement of the students in the class during the writing assignments at the beginning and end of the study.

Your child may also be asked to participate in an art-based activity that will be integrated into his/her existing visual arts coursework.

On November 5, 2010, your child will be asked to complete the same writing assignment as on October 25th and fill out a second survey similar to the first, which will take 30 minutes.

A total of thirty samples (fifteen from the group who will also do a related art project and five from the group who will not be partaking in a related art project) will be randomly selected for data analysis for my study.

Participation in this study is voluntary and will not affect your son/daughter's attendance in class or his/her evaluation by the school. All information collected will be strictly confidential. After all data have been collected, the students will not be identified individually.

Please indicate on the attached form whether you permit your son/daughter to take part in this study. Your cooperation will be very much appreciated. Contact me (310-904-8677 or marcine@bu.edu) if you have further questions.

Sincerely,
Marcine Linder

PARENTAL/GUARDIAN CONSENT FORM	
YES, I agree to allow my child	(son/daughter's name)
To participate in:	
(a) the written survey	5
(b) the written assignment	5
(c) the art project	5
(d) to be included in the random selection process for data analysis	5
NO, I do <u>not</u> wish my child	(son/daughter's name)
to participate in:	
(a) the written survey	5
(b) the written assignment	5
(c) the art project	5
(d) to be included in the random selection process for data analysis	5
	Date: _____
Parent's/Guardian's signature:	

Appendix B

Student Survey #1 Focus Group

1. **Do you enjoy writing?**
(yes/no)
2. **How confident do you feel about your ability to write well?**
 - a) not confident at all
 - b) somewhat confident
 - c) very confident
3. **How clearly do you think you were able to express your ideas and opinions in the writing assignment you just completed for this study?**
 - a) not at all clearly
 - b) somewhat clearly
 - c) very clearly
4. **How much depth do you think you were able to go into in the writing assignment you just completed for this study?**
 - a) limited depth (just the basics on the topic)
 - b) moderate depth (explains your ideas and why you feel this way)
 - c) rich, abundant depth (goes to great depth to explain your ideas and the rationale behind them)
5. **How much detail (in the form of examples, descriptions etc.) do you think you were able to go into in the writing assignment you just completed**
 - a) limited detail
 - b) some detail
 - c) rich, abundant detail
6. **Do you like engaging in art activities (drawing/painting/sculpture/computer graphics)**
(yes/no)

Appendix C

Student Survey #1 Control Group

1. **Do you enjoy writing?**
(yes/no)
2. **How confident do you feel about your ability to write well?**
 - a) not confident at all
 - b) somewhat confident
 - c) very confident
3. **How clearly do you think you were able to express your ideas and opinions in the writing assignment you just completed for this study?**
 - a) not at all clearly
 - b) somewhat clearly
 - c) very clearly
4. **How much depth do you think you were able to go into in the writing assignment you just completed for this study?**
 - a) limited depth (just the basics on the topic)
 - b) moderate depth (explains your ideas and why you feel this way)
 - c) rich, abundant depth (goes to great depth to explain your ideas and the rationale behind them)
5. **How much detail (in the form of examples, descriptions etc.) do you think you were able to go into in the writing assignment you just completed**
 - a) limited detail
 - b) some detail
 - c) rich, abundant detail

Appendix D

Lesson Plan for the Drawing Activity

Integrated Art Project Lesson Plan

TDSB High School

Grade 10

Title: A Picture is worth a thousand words

Relationship to Life: Sometimes the most profound ideas are not easily expressed in words.

I. PROBLEM/ACTIVITY

Students will create 2-dimensional artworks using graphite pencil, colored pencil, marker, and chalk pastel that express their concept of home and what it means to them.

II. GOALS

Students should

Know:

Ontario Grade 10 English Writing Standard 1.2 generate, expand, explore, and focus ideas for potential writing tasks, using a variety of strategies and print, electronic, and other resources, as appropriate (e.g., free write or consult a writing journal to evolve or focus a topic for a narrative; identify and rank focus questions for further investigation; 2 brainstorm in a small group to create a list of potential topics and questions for enquiry; conduct an electronic search for information on an author for a class project; summarize and paraphrase information and ideas in point-form notes; use formal debate strategies to explore ideas prior to research)

Understand:

Ontario Grade 10 Visual Art Standard C1.3 identify and describe the stages of the creative process and the critical analysis process (*e.g., how reflection relates to the other stages of the creative process*)

Be able to:

Ontario Grade 10 Visual Art Standard A1.2 use experimentation, reflection, and revision when producing a variety of art works in each of the following areas: drawing, sculpture, painting, printmaking, and mixed media

III. OBJECTIVE(S)

Students will: Create a two-dimensional drawing using one or more of the media listed below that expresses their concept of what home is in relation to how they feel about the quote "Home is not where you live but where they understand you".

IV. RESOURCES AND MATERIALS

- 11"x8.5" blank white paper
- graphite pencils
- markers
- chalk pastels

V. MOTIVATION

Topic question (s)

- What does the concept of home mean? (prompt students to come up with ideas such as:
Is it a room? Is it a structure? Is it a state of mind? Is family? Is it community?)

Association questions:

- When does a place start to become something you call home?
- Is it possible to have more than one home?
- How many places do you call home?

Visualization Question(s)

- What does home look like? Is it a color? Is it a space? Is it manifest in an interaction between different people?

Transition Question(s)

- If you were going to express your concept of home using pictures and words (if you choose), what would you create?

VI. PROCEDURES

Discussion

5-10 minutes

There will be brief introduction/discussion based on the questions above.

Work Period

30 minutes

Instructions:

Students will be instructed to visually represent their concept of what home means to them. This could take the form of comic strip(s) that communicate scenarios that remind them of home, a picture of anything that for them connotes "home", an abstract drawing that uses color, shape, line, texture, etc. to connote the concept of home

Distribution:

Four student helpers will be selected to

- a) Give a sheet of 11x17" paper to each student
- b) Pick up and distribute bins of markers to each table grouping
- c) Pick up and distribute bins of colored pencils to each table grouping
- d) Pick up and distribute bins of chalk pastels to each table grouping

Studio time:

Students will work on their drawings

Clean-up (after both this lesson and the writing assignment that follows this lesson are complete)

The same student helpers will collect the drawing materials

The researcher will collect the artwork and ensure it has all been labeled with the students' names

Closure: Teacher/Student Summation

So what is home? Is it a place or based on the events and relationships that happen in the place or both? Why?

VII. EVALUATION

Artworks will be analyzed for the following characteristics:

- Content: drawn "realistically"? stick figures? Abstract?
- Expression: the amount of detail/evidence of conceptualized ideas, thoughtful expression in the work

APPENDIX E

Student Survey #2 Focus Group

1. **Do you enjoy writing?**
(yes/no)
2. **How confident do you feel about your ability to write well?**
 - a) not confident at all
 - b) somewhat confident
 - c) very confident
3. **How clearly do you think you were able to express your ideas and opinions in the writing assignment you just completed for this study?**
 - a) not at all clearly
 - b) somewhat clearly
 - c) very clearly
4. **How much depth do you think you were able to go into in the writing assignment you just completed for this study?**
 - a) limited depth (just the basics on the topic)
 - b) moderate depth (explains your ideas and why you feel this way)
 - c) rich, abundant depth (goes to great depth to explain your ideas and the rationale behind them)
5. **How much detail (in the form of examples, descriptions etc.) do you think you were able to go into in the writing assignment you just completed?**
 - a) limited detail
 - b) some detail
 - c) rich, abundant detail
6. **In your opinion, how does this composition compare with the one you wrote in the first session?**
 - a) it was about the same (in terms of its clarity, depth, and detail)
 - b) It had greater clarity, depth, and detail
 - c) It had less clarity, depth, and detail
7. **Do you like engaging in art activities (drawing/painting/sculpture/computer graphics)**
(yes/no)
8. **How did creating the art project affect your ability to write?**
 - a) it didn't affect it at all
 - b) it made it easier to write
 - c) it made it harder to write

9. **Did you refer to your art project while you were writing?**
(yes/no)
10. **How did the ability to refer to your art project when you completed the writing exercise affect your ability to write?**
a) it didn't affect it at all
b) it made it easier to write
c) it made it harder to write
11. **Did you ever look away from your paper and stare into space when you are writing today?**
(yes/no)
12. **When you paused from writing today, how would you describe the focus of your thoughts:**
a) completely off topic
b) both on topic and off topic (e.g. about personal things)
c) completely on-topic
13. **When your thoughts are focused on coming up with ideas to write about, do you think of**
a) words
b) pictures
c) sounds
d) smells
e) other_____

Appendix F

Student Survey #2 Control Group

2. **Do you enjoy writing?**
(yes/no)
3. **How confident do you feel about your ability to write well?**
 - a) not confident at all
 - b) somewhat confident
 - c) very confident
4. **How clearly do you think you were able to express your ideas and opinions in the writing assignment you just completed for this study?**
 - a) not at all clearly
 - b) somewhat clearly
 - c) very clearly
5. **How much depth do you think you were able to go into in the writing assignment you just completed for this study?**
 - a) limited depth (just the basics on the topic)
 - b) moderate depth (explains your ideas and why you feel this way)
 - c) rich, abundant depth (goes to great depth to explain your ideas and the rationale behind them)
6. **How much detail (in the form of examples, descriptions etc.) do you think you were able to go into in the writing assignment you just completed?**
 - a) limited detail
 - b) some detail
 - c) rich, abundant detail
7. **In your opinion, how does this composition compare with the one you wrote in the first session?**
 - a) it was about the same (in terms of its clarity, depth, and detail)
 - b) It had greater clarity, depth, and detail
 - c) It had less clarity, depth, and detail
8. **Did you ever look away from your paper and stare into space when you are writing today?**
(yes/no)
9. **When you paused from writing today, how would you describe the focus of your thoughts:**
 - a) completely off topic
 - b) both on topic and off topic (e.g. about personal things)
 - c) completely on-topic

- 10. When your thoughts are focused on coming up with ideas to write about, do you think of**
- a) words
 - b) pictures
 - c) sounds
 - d) smells
 - e) other_____

Appendix G

Rubric for Evaluating Student Writing Samples

	Level 1	Level 2	Level 3	Level 4
Clarity of thoughts and ideas	Students' thoughts and ideas are unfocused, confusing and lack coherency	Student's thoughts and ideas are somewhat clear, but not entirely coherent or easy to follow.	Student's thoughts and ideas are clearly expressed easy to follow	Students' thoughts and ideas are very clearly expressed, logically organized. It is evident that the ideas expressed are authentic, well thought out , and are a genuine reflection of what the student feels
Depth of ideas	The student's thoughts and ideas are grounded in one or two examples or explanations that are not clearly expressed.	The student's thoughts and ideas are grounded in a few examples and explanations that are somewhat clearly expressed.	The student's thoughts and ideas are grounded in several clear, logical, specific examples/ explanations.	Student includes a very well-thought out rationale for his/her thoughts and ideas supported by very clear, logical, and specific examples/ explanations that are numerous and varied
Amount of detail	The student includes little or now detail in his/her writing. Few or no adjectives, adverbs, figures of speech or other descriptive devices have been used.	The student includes a few details in his/her writing. These details may take the form of adjectives, adverbs, and figures of speech, detailed descriptions	The student includes considerable detail in his/her explanations. These details may be evident in writing devices such as include adjectives, adverbs, figures of speech, detailed descriptions	The student includes many details in his/her explanations. The details are very vividly and clearly articulated They may be evident through the use of adjectives, adverbs, figurative language, detailed descriptions and so-on

Appendix H

Unit Plan

Course:

Grade 10 Academic English

Component	Explanation
DESCRIPTIVE TITLE:	<p>Home is not where you live but where they understand you. The homes, communities, and neighborhoods we live in have a profound effect on our perceptions of the world and how we react to it. When students reflect what places they consider home, why this is, and how this impacts their perception of the world. This unit will help them to reflect on their personal experiences, thoughts, and feelings, organize them, and translate them into an expository composition that is clear, goes into depth, and includes rich detail.</p>
GOALS:	<p>Students Should... (Based on the Ontario, Canada curriculum standards for grade 10 Academic English).</p> <p>Oral Communication 2.3 communicate in a clear, coherent manner, using a structure and style appropriate to the purpose, subject matter, and intended audience</p> <p>Writing 1.2 generate, expand, explore, and focus ideas for potential writing tasks, using a variety of strategies and print, electronic, and other resources, as appropriate</p> <p>Writing 1.4 identify, sort, and order main ideas and supporting details for writing tasks, using a variety of strategies and organizational patterns suited to the content and the purpose for writing</p> <p>Writing 2.6 revise drafts to improve the content, organization, clarity, and style of their written work, using a variety of teacher-modelled strategies</p>
INSTRUCTIONAL CONCEPTS:	<p>Traditional writing strategies guide students to use word-based tools for brainstorming ideas such as mind maps, and graphic organizers, followed by point-form outlines before students begin writing their first drafts of essays and other compositions. Although these strategies are effective for helping writers to organize their ideas, most students do not use them when they not required to, and when they do, they often have difficulty thinking of ideas to use in them. In the research study</p>

that precedes this appendix, the researcher hypothesizes that there are five nested levels of abstraction for writing:

Level 0: The thoughts and ideas in the writer's head

Level 1: A photographic image of the thoughts in the writer's head (impossible to obtain, at least at the present time)

Level 2: A drawing created by the student of the ideas in the writer's head

Level 3: A graphic organizer or mind map of the ideas in the writer's head

Level 4: An outline of the paper they intend to write based not the ideas in the writer's head

Level 5: the paper they write based on the ideas in the writer's head

When the focus students in this study were able to participate in an integrated drawing activity before writing, their average scores for clarity, depth, and detail improved. In most cases, there was a much richer trove of information communicated in the students' drawings than they were able to express in words. The average scores of the control group, those who did not participate in this study declined. This suggests that a disconnect between the ideas in students head and what information they are able to communicate on paper that was bridged by the drawings the students created.

In order to help students to make these connections when they are writing it is crucial for teachers to be able to go beyond the "surface attributes of their students and find out what goes on in their heads and in their worlds" (Simpson, 1998, p. 28). Drawing can help students express what goes on in their heads and their worlds more clearly and with more depth and detail than writing, even when the student is not highly skilled at it. Students can use their drawings as a visual reference to translate their thoughts into words independently, in discussion with a partner or small group, and when conferencing with a teacher.

In addition to the individual drawing activity, Reilly's (2008) "Art Conversations", twenty minute silent visual communications using finger paints will be used in this unit. It will help students demonstrate both comprehension and a shared, deep, introspective nonverbal expression of what the concept of home means to them. This technique has been shown to help English Language Learners write deep and insightful poetry, and in an integrated English classroom (where students of all abilities including English Language Learners and those with special needs) it will help students activate and connect their aesthetic right-brain senses both to express themselves and be inspired by each others' expressions.

LESSONS:	<ol style="list-style-type: none"><li data-bbox="570 344 1351 632">1) Building on prior knowledge: Students will reflect on the quotation “Home is not where you live, but where they understand you” by Christian Morganstern in their sketchbooks using both drawings and text . Following this, they will use the think-pair-share formula, and pair with a partner to discuss their drawings. Pairs will then share their drawings and ideas will then share their thoughts with the class.<li data-bbox="570 674 1351 1073">2) Students will be paired off with different partners than they worked with on day 1 to engage in a “talking pictures” finger painting exercise about their conceptions of what home means to them for approximately 20 minutes. The “art conversations” finger paintings charts will be displayed around the room and students will engage in a gallery walk to look at everyone’s work before returning to their seats for a class discussion about them. They will create mind maps to record in words, their thoughts and ideas re: what they will write about.<li data-bbox="570 1115 1351 1402">3) Students will use graphic organizers to structure and codify the ideas in their mind maps from lesson 2, and add to their mind maps (and drawings from day 1) if desired. Following this, students will use an outline template to decide which ideas to use in their final paper and where they will place them in its structure to maximize its clarity, depth, and details. During this time, the teacher will conference with the students<li data-bbox="570 1444 1351 1661">4) Students will use their outlines to write the first draft of their paper. They will trade papers with a partner and peer review each others’ work. They will write a second draft of the paper and refer to their drawings and graphic organizers as needed. They will turn in their paper for formal feedback from the teacher.<li data-bbox="570 1808 1351 1877">5) Students will use the feedback from the teacher to write the final draft of their paper, making corrections and

	strengthening their ideas, using their artwork and graphic organizers as needed. The students will turn in their final paper for grading.
MATERIALS	<ol style="list-style-type: none"> 1) 11x17" cartridge paper 2) Markers 3) Colored pencils 4) Chalk pastels 5) Oil pastels 6) Graphite pencil 7) Erasers 8) Fine-tipped black ink pens 9) Finger paints 10) Finger painting paper 11) Lined paper 12) Photocopies of graphic organizers 13) Computer lab with a class set of computers
ASSESSMENT:	rubrics, in-process behavior checklist, guided discussions
REFERENCES:	<p>Reilly, M. A. (2008). Finding the right words: Art conversations and poetry. <i>Language Arts</i>, Vol. 86, No. 2, 99-107.</p> <p>Simpson, J.W. (1998). In J.W. Simpson, J. M. Delaney, K. L. Carroll, C. M. Hamilton, S.I. Kay, M. S. Kerlavage, L.S. Janet <i>Choosing to become an teacher of art. In Creating meaning through art: Teacher as choicemaker</i> (pp 3 – 22). Upper Saddle River, NJ: Merrill Prentice Hall.</p>