

IDENTIFYING CREATIVE THOUGHT IN THE VISUAL ARTS CLASSROOM

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ABSTRACT

This action research paper outlines the relationship between creative thinking skills, as they are applied to drawing in the visual arts classroom. The literature review happened during the 2013-2014 academic year, and was followed by the action research study in the following fall. The study took place in a middle-class suburban high school in Washington State. Examination focused on a range of student drawing exercises including initial drawings, Torrance Test of Creative Thinking, and personal sketchbooks, as well as a comprehensive creativity survey. The original research question (identifying the ways students express creativity through drawing in the arts classroom, and the affect that creativity has on their ability to succeed in integrated content lessons) was adapted during the research study period (in what ways can creativity be effectively tracked in a visual arts classroom). Three distinct findings are identified through the data analysis; Growth mindset in creativity, Creative thinking ability vs. preparedness, and Effectiveness of tracking creativity as expressed through drawings.

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CHAPTER 1: INTRODUCTION AND LITERATURE REVIEW

Visual arts have a particular ability to both engage student thought, and provide an additional method for students to communicate their understanding of content knowledge, beyond written or verbal evidence. Though the arts have continued to have a role in the public education system they are often undervalued for their academic rigor. When effectively incorporated into a student's schooling, the visual arts provide methods of engagement and understanding not available in traditionally public school courses. Through my examination of the role of arts in an integrated school curriculum, several methods of arts integration were examined for their effectiveness in the classroom. In addition to outlining the values and methods of arts integration I also discuss the practice and impact of assessment in relation to the visual arts.

In the public school system students are largely expected to provide evidence of learning through either standardized testing or written assessment. Each of these methods relies heavily on the students' ability to understand and create responses to written language. By participating in visual arts courses these students gain access visual language. If they are then assessed through the visual arts they gain greater access to the educational system. Dewey (1994) outlines the distinct ability of the arts to act as a means of communication. He outlines a three-part system of speaker (artist), the thing said (artwork), and the listener (viewer). Dewey's concept of expression precisely outlines the role of the arts in an education system. Students speak through their artwork to exhibit their understanding of course materials to their instructor. Through this line of examination I explore the effectiveness of

incorporating visual arts methods into traditional courses to promote a greater range of engagement, and therefore serve a more diverse group of students. This question is being explored through the examination of a variety of high school studio arts courses, including drawing, painting, and introduction to art.

The Role of Art in the Classroom

The role of visual arts in the classroom takes shape largely through the perceived usefulness of its application. It is no surprise that students have a strong response when this form of creative work is included in their course work. Young students have a constant desire to create, and their creations can take many forms. Student work is however limited to their ability to translate internal ideas to external products (Zull, 2002). Therefore, not only is idea development limited to means of communication, but an individual's ability to express understanding can also be restricted by lack of access to forms of expression (Gee, 2001; Gallas, 1991). Traditional methods of communication applied in schools can become a challenge to students when they attempt to form and express ideas in two significant aspects: access to methods of communication and limitations on those forms of communication.

Ability to show evidence of understanding and thought plays a large role in the depth of engagement through any one medium. Therefore, limiting methods of communication can negatively affect student ability to engage in schoolwork (Gee, 2001). Students who struggle with written and verbal communication can find great difficulty in not only English language arts courses, but may also find limitations set in any content area that applies emphasis on written and verbal forms of

engagement (Zweires, 2008; Gallas, 1991). Limits of engagement due to inability to write or speak effectively have significant, negative impacts on students who use English as a second language. Additionally, students with learning disabilities are also inhibited by similar limitations. Beyond restrictions placed on students, the traditional forms of communication also hold limits within themselves and within their structure. Ideas are not developed singularly through communication.

Reflection and synthesis must occur for an individual to form original thought (Zull, 2002; Friere, 1983). To fully engage with new information and ideas students must have an ability to consider that information from a variety of viewpoints.

Approaching novel concepts through multiple viewpoints allows an individual to be innovative when developing personal understanding (Robinson, 1989). Therefore, the integration of visual arts as a method of communication offers students a greater range of access to information and evidence of learning.

At-risk students also benefit greatly from the incorporation of the arts in their educational career. Catterall, Dumais, and Hampden-Thompson (2012) examined four longitudinal studies to find what affects arts involvement would have on low-socioeconomic populations. Their study drew on decades of interviews and survey questions, in addition to transcripts and administrative documents. The researchers constructed a scale to measure arts engagement, which ranged from high to low. Arts variables from each study were then assessed on this scale. Each scale had a separate scoring method and focused on leadership in organizations and frequency of participation. Scale examples include: students who received a four-year degree, students who anticipated having a professional career, and top-ten

ranking of occupations. Through this examination it was found that teenagers and young adults of low socioeconomic status show higher achievement in their academic career when the arts are incorporated into their studies. These students not only received higher grades than students of low socioeconomic status who did not have experience with the arts, but also had higher college placement once graduated from high school. A link was shown between K-8 student participation in the arts and higher test scores in the sciences and writing. Overall, students who studied the arts achieved slightly higher grade point averages than those who did not. Beyond the rise in academic achievement the researchers also found that the students with experience in the arts grew up to be more socially-minded, as shown in their higher rates of volunteering, voting, and participation in local/school politics. The researchers found that all students with experience in the arts show success in a wider range of topics and courses. Low socioeconomic students who were involved in the arts showed achievement levels approaching or exceeding those of the general population. While the link between arts experiences and academic success was only shown in at-risk youth/young adults, the link to higher civic engagement was present in all members of the population. Triangulation is provided in this study through the researchers use of several large-scale sample groups, as well as multiple scoring scales. Though transferability is not possible, due to a lack of specific identifiers, the overall dependability of the study is strong, as a result of the magnitude of data collected and analyzed (Mertens, 2009).

Integration of the arts into the education system can occur in several ways, but it is first necessary to identify the seemingly polar systems of traditional vs.

creative curriculum (Robinson, 1989). The arts are often identified as playing a minor role in a student's educational process. Those that view school as preparation for the job market quickly label the arts as unimportant, or de-power them as simply leisure activities (Robinson, 1989). Issues of time and funding are the two main points for this stance. It is argued that students must receive the maximum amount of information while in school. Budgets are in turn allotted to content areas valued by their direct relation to industry. Current education systems have used this line of argument to place value on traditional content areas and methods of instruction. Math and Science are seen as the most effective at readying students for the job market. Assessment is created through the implementation of standardized testing that focuses on the students' ability to reproduce memorized facts. By placing emphasis on this form of education, courses deemed of lesser value, such as visual arts, are pushed out of the student's experience (Mishook & Kornhaber, 2006). Due to a vehement acceptance of this concept a rift has formed between those content areas viewed as traditional and those viewed as creative (Bolden, Harries & Newton, 2010). Not only are the courses of creative knowledge de-valued, but also the method of creative thinking itself has become disassociated with academics in general.

Creative Thinking and The Arts

In the current education system creativity is seen as a finite quality. Across content area creativity is often considered as if it were a set feature in the student, rather than an ability that might be taught. This belief leads to the idea of genius, or born ability in a specific subject. When we think of great mathematicians or artists

we believe they started with an inherent advantage to their craft, as if they were born with a mind ready to consider ideas in new and original ways. While it is true that some leading figures do show signs of talent in their field at an early age, it is also true that most do not. Believing in this innate ability denies students the opportunity of success later in life in fields they find difficult at an early age (Dweck, 2000). Rather than dismiss ability in a particular field based on perceived skills, focus should be placed on the multiple ways in which learners can attempt to solve a problem. By examining the process of thought, rather than the product, an instructor can gain a more accurate understanding of ability. Once this understanding is assessed creativity can be seen as an exercisable quality rather than fixed.

When discussing the qualities of ability and creativity Robinson (1989) outlined the importance of creating a link between the two. He argues that a balance must be struck between traditional methods of education and creative ones. Traditional education allows for the passing down of known ideas and facts, but this has little to offer for the future of thought. Without creativity there is little hope of an individual advancing those ideas or the application of the facts. Robinson (1989) goes further in his analysis of creativity into a discussion of creativity as learned. In relation to the arts there is a perception of genius linked to those who are extremely successful. This can also be seen in other fields where individuals show great ability, beyond that of their peers. Such individuals are often labeled as innovative, inventive, or ingenious. Through his work Robinson has shown creativity is not always linked with an innate talent, but rather an ability that can be cultivated and

developed. The arts access to engaging creative thought can be used in tandem with traditional content to create a deeper involvement between student, information, and original thought. It is this interaction that allows students to create personal relationships with content knowledge, which in turn allows for a deeper engagement in their field of study.

Exploring the ability of the arts to enhance student-learning Carroll, Britos, and Koh (2010) applied the concept of *designer thinking* to the middle school classroom. Designer thinking is a method of problem solving that mirrors the process of the scientific method. In the study students were guided to approach a problem through the six stages; understand (research), observe, point of view (synthesize data), ideate (brainstorm), prototype, and test. The researchers found that this method of creatively approaching a problem promoted student understanding and created significant learning experiences. Designer thinking was also found to increase risk-taking in student work, raise confidence in expressing one's own voice, and promote collaboration between students. Beyond these improvements to traditional instruction Carroll, Britos, and Koh provide a framework to link creative thinking through artistic thought to the scientific method. This link provides for easy application of concepts across content lines.

Triangulation exists in the Carroll, Britos, and Koh (2010) study through multiple examples of data collected. Transferability is also quite strong due to the clear and defined explanation of the researcher's methods and practices while interacting with study participants. However, the credibility of the research group must be questioned in light of the close relationship these researchers hold to

commercial design firms. While this does not influence their findings it must be kept in mind that the focus of this research was not purely educational.

Also examining the relationship between the field of science and the arts, Slattery and Langerrock (2002) describe how a career in the sciences resembles one in the arts. The researchers' analysis of the overlapping characteristics outlines connections between scientific and creative thinking through four categories. First is the sense of intuition, in which a scientific researcher may *feel* attached to a particular concept, theory, or method of work. "That category may simply 'feel right,' and the researcher finds it helpful both in terms of research construct and interpersonal harmony to follow a particular direction" (p.350). Second is a receptive visualization that opens a researcher to becoming aesthetically struck by a particular situation within the research. This initial inspiration then guides further attention. Third is a sense of chance that frequently attends a researcher's relationship with their studies. Individuals often work in a state of synchronicity that seems to guide them along a path of research. Fourth and final is the use of feelings as a guide, which links closely with aesthetic choice. "Scientists can look within themselves for images and experiences applicable to all areas of research, images that show them what direction to take for further harmony and coherence in the process of inquiry" (p. 351). Through this framework it is seen that the blending of the arts' creative thinking skills with traditional content, such as the sciences, allows a deeper engagement between individual and content knowledge. Furthermore, the consideration that creativity is learned and developed, rather than

inert, poses the question of how creative thought might be better integrated into the current curriculum of public schools.

In this paper creativity is identified and discussed in terms of how it can be represented in student drawings. This definition is applied to set a parameter around the rather broad concept of creativity as a whole. Without this restriction it would be far too theoretical of a concept to logically identify in an action research study. While this does provide some limitations to how creativity can be tracked and assessed it does pinpoint one facet of creative thinking. This one aspect can then be effectively identified and evaluated in a visual arts classroom. Identifying creative thinking and ability through the examination of drawings is a proven method for this form of study (Torrance, 1948).

Assessment and Arts Integration

The effects of standardization on the arts were examined by Mishook & Kornhaber (2006). Their study took place in Virginia in 2002, at a time when their State of Learning (SOL) examination process was beginning to be implemented on a state wide level. In response to No Child Left Behind Virginia began to gear up for using the SOL to assess performance and determine funding. While these steps were not in place yet, they were at the forefront of everyone's mind. Twenty-three schools were identified as having a strong connection to the arts and contacted originally, with ten being selected from principal interviews. Eight of these were then matched to eight schools with similar demographics, but which did not support the arts as heavily. The principals of these schools were then interviewed for 45-90 minutes. Interviews were transcribed and coded. Nine interviews were found to contain

enough information related to integration to be analyzed. Five of these were focused on the arts, and four were not.

Mishook and Kornhaber (2006) defined several elements in the relationship between high-stakes testing and the integration of the arts in public schools. The researchers also outlined multiple concerns in their study. The authors found that arts programs in schools pressured by high-stakes testing became diffused as an aide to traditional course work. These programs applied a largely subservient and/or affective integration style. In addition to these styles, the arts were also applied as a motivator for learning basic skills. Such uses remove the process of creative thinking from visual arts. The researchers concluded that when used for surface-level enhancement of traditional lessons the arts lose their power to fully engage student learning. Mishook and Kornhaber also found integration more likely in reading, writing, and social studies than math and science. Arts-focused schools were far more likely to use a co-equal integration, while non-arts employed subservient uses. Poverty was also linked to subservient methods, which is then extrapolated to consider direct instruction as a key fixture in high poverty schools. It is mentioned that co-equal arts is not offered at high poverty schools.

Though visual arts are not included in high-stakes standardized testing in the United States there is a precedent set in other nations. Beattie (1992) created a critical examination of the Dutch model of assessment, including a consideration on the ability to transfer the method to US schools. In this study, the Dutch system of standardized assessment, *Centraal Praktisch Ecamen (CPE)*, is examined as an acceptable method of assessment in the arts. Focus is placed on considering the

merit of students who are eligible to take the exam, the Dutch system of categorizing the arts, and an analysis of the exam itself. Before students apply to take the CPE they must first achieve a high rank in the Dutch school system, equivalent to A.P. courses in the US. Students' junior years are devoted to the studying of selected examination subjects, therefore only A.P. arts students enroll in upper level art classes. In their senior year the student devotes their attention to examinations, the CPE.

The CPE is structured on the completion of four tasks: 1) Recognize and analyze a visual arts problem via a designated task or theme. 2) Test a number of solutions using media of the chosen visual arts discipline. 3) Arrive at final solutions or products. 4) Report on the entire procedure in a written account.

Feasibility of the CPE enacted in the United States is influenced by the differences in art systems of the two countries. The author identifies the US as not contributing enough focus to the arts in the student's career, and therefore would prevent students from successfully completing the exam. Were students to receive adequate focus in the study of the arts, Beattie (1992) suggests the CPE-style assessment is a good fit for the US school systems due to its rigorous demand of responding to a particular problem, with answers resulting in successful visual works.

Defining creative aptitude in response to a specific question does, however, beg the question of what is the best practice for assessing student work in the visual arts classroom. In the context of this paper, student work is defined as two distinct parts. First is student effort, which is linked to an individual student's process and

work habits. Second, and directly examined in this paper, is the students' creative ability. Splitting these two qualities must be done with specific intention, for each are integral pieces to the success of the visual arts student. While it is true that both must be present in a successful visual arts student, it is equally true that the two can be assessed as individual skills. Gruber (2008) split these two skills into the categories of product, a result of effort, and creative thought, as shown through the student's process. He found that creativity and artistic product could be separated to the extent that it becomes not only fair, but also appropriate to assess one without the other. Both product and process should be considered when evaluating student mastery. To do this, the author recommends using written tests, observation, checklists/rubrics, finished product, and portfolio. Through this series of considerations the instructor will gain a whole and authentic understanding of students' creative ability in a visual arts classroom. Traditional art classes frequently place the entirety of student ability on the artistic quality of their final work. Using this method is flawed due to the lack of consideration of student's ability to perform effective artist practices. Separation of product and process in assessment criteria will allow for a more authentic and accurate look at student ability (Gruber, 2008). This is done by placing focus on the process of student work, as well as the quality of the final piece. These practices are arguably the ones that will be most beneficial for students in their future, and outside of the arts classroom.

If the visual arts are to be relied on to engage student learning there must be clear measurement of that student learning. Paul Torrance outlined the need for accurate measurement of a child's overall understanding, rather than intellectual

capacity and achievement (1948). Testing is intended to provide an examiner with information on their subjects' ability to complete targeted tasks. Test participants are only able to provide information on those targeted areas. To compensate for the lack of accuracy in the testing of creative thought, Torrance developed a test that directly targeted the participants' divergent thinking. The *Torrance Tests of Creative Thinking* (TTCT) have since become the most relied upon and cited examination of creative thought. It has been translated into 35 languages, and is highly recommended in the field of education as well as the corporate world (Kim, 2006). The TTCT was uniquely designed to not only measure creative thought, but to nourish it as well.

The TTCT identifies four separate indexes (fluency, originality, flexibility, and elaboration) each of which was identified as a contributor to an individual's method and ability to apply creative thinking. Multiple methods of testing can be applied to a study group to gather responses through written, spoken, or drawn participant feedback (Runco, et. al. 2010). Drawing examiners introduce a foreign image to the test subject, usually a simple combination of lines, and ask the test participant to elaborate upon this starting point. Participants are given little instruction beyond the test's classification as a creativity test and a time limit of a few minutes. Results are scored through a list of comprehensive qualifiers designed by Torrance to identify aspects of creative thinking. Test scores can be viewed individually, to pinpoint key areas of creative thinking, or overall, to identify general levels of creative thinking. This is one method of examining creativity through drawing that will be applied in the following research study.

In 2006 Kyung Hee Kim provided an examination of the TTCT as it is currently being used with students and children. His examination of the TTCT found specific merit in the exams range of information, limited time requirement for administration, and the relative ease of administering the individual segments of the test (p. 8). Due to its prevalence in the education community and history of wide spread use the TTCT has one of the largest norming samples. It has been identified as lacking statistically significant differences on performance between populations of diverse socioeconomic status and race (Torrance, 1971). Kim (2006) concludes his examination of the TTCT by recommending at least two measures of assessments for an accurate measure of a child's creative potential.

Arts Integration Types

To bring creative thought into the classroom one must first outline the vehicle through which it can be effectively delivered to the student. While several ideas have been expressed on the ability of subjects to engage student interest it is clear that not all content areas inspire children at the same level. For this reason, and due to their inherent links to creativity, the visual arts are an ideal vessel for applying creative thinking techniques to the classroom. These techniques include solving a singular problem in multiple ways, linking seemingly dichotomous ideas, and applying known techniques and materials in new situations. While the visual arts have long been a feature in traditional education, it will be seen that by integrating them more deeply into traditional education, students form a closer bond with their subject material. Several writers have discussed the meaning of arts integration as a concept. Rabkin and Redmond (2006) offer a particularly strong

example of what an integrated program looks like. Such curricula “use the arts as media to communicate content and as methods of learning through such practices as careful observation, inquiry, practice, creation, representation, performance, critique, and reflection” (p.64). They go on to state that these types of programs look different in each school in which they are applied because they draw from, and therefore mirror, the particular community they serve. Beyond this, arts integration programs also “provide arts instruction both within the context of other subjects and as a subject in its own right” (p. 65). This statement is of particular importance when considering the balancing of a curriculum including the arts and other content areas. Due to the perceived importance of mathematics and the physical sciences by current education systems, programs touted as arts integration are often nothing but a thin application of craft to a traditional lesson plan. While these systems might create a brief buy-in from the students due to an interest at the chance of a creative process, they neither strengthen student understanding in the arts or the original content, and therefore fail to inspire deeper understanding in any way.

Due to the range of methods when integrating the arts into traditional lesson planning there are several types of integration. As a method, each type holds specific outcomes in mind when applied to the classroom, and therefore guides student focus in a particular direction. Through a three-year study of elementary school programs, Bresler (1995) outlined four main types of arts integration methods, the most common of which is the *subservient style*, in which the arts are applied to “spice things up” in a traditional lesson. This method is most easily described as the use of a song to inspire interest in students’ learning of an information set, such as

the planets in our solar system or the 50 states. Subservient integration lessons apply the arts to serve the “basic academic curriculum in its contents, pedagogies, and structures” (p. 5).

A strong example of the ineffectiveness of the subservient style is shown in Dantrassy’s (2012) study of the link between comprehension and motivation when the visual arts are incorporated into a math lesson. In this study the researcher examined three 3rd grade classrooms. Two incorporated arts projects into math lessons and the other was used as a control. In the control classrooms the students were allowed to work on art projects while learning about equivalencies. These projects used visual symbols and coloring to provide a visual aspect to lessons on equivalencies. While the Dantrassy study’s validity is limited due to small sample size, its findings are indicative of the subservient style of integration. No significant differences were found in student motivation, either intrinsic or extrinsic, between the two projects, though students showed a minor increase in interest attending the math lessons that incorporated the arts. Final equivalency assessment scores between the two groups matched at 80%. The findings of this study show that the surface treatment of including creative activities into a traditional lesson provides little benefit for student understanding. Dantrassy concludes that additional, long-term studies should be conducted to provide deeper insight into the issue.

Bresler (1995) describes an *affective integration style* where the arts are taken in rather than acted on. This method includes activities like the playing of music while students work on another project. Neither the instructor nor the students participate in creative thinking involved with music, and therefore gain

none of the benefits linked to this method of thought. An additional style is outlined by Bresler's use of the arts as a community experience, such as theatre, plays, and art shows, but this can hardly be considered integration as it does not include the learning of content knowledge outside of the arts.

However, Bresler offers one additional method that does allow for a positive interaction between content. The *co-equal style* of integration "brings in the arts as an equal partner, integrating the curriculum with arts specific contents, skills expressions, and modes of thinking" (p. 5). Incorporating through the co-equal style deepens student learning by linking creative experience with content knowledge. Dewey (1994) discussed the relationship between experience, the arts, and deeper learning in the context of all knowledge resulting as a derivation of an individual's reaction to their environment. Once experienced by an individual, art products do not merely represent other things, but rather references those things through material and subject matter. Dewey makes the distinction between the expressive quality of art, and the statement-focused subject of science. "Science states meanings; art expresses them" (p. 208). Students who experience information and concepts, rather than reciting facts, have a greater opportunity to engage with new material. Drawing from her experience as a classroom instructor and teacher-educator Cornett (2003) adds to the argument of creating a deeper connection between the arts and curriculum. To best affect student engagement with traditional content, specific focus must be placed on using the arts beyond simple entertainment.

Action Research Question

Given the role of creative thinking in all stages of academic work, the variety of methods for integrating the arts into traditional course work, and the ability to assess integrated works effectively, arts integration is a viable method of promoting diverse student engagement. In my study I hoped to question the ways students express creativity in the arts classroom, and the affect that creativity has on their ability to participate in integrated content lessons. To fully engage this topic I planned on examining how content area standards from traditional subjects can be effectively integrated into multiple visual arts lesson plans. Students would then have been given learning targets representing not only the visual arts, but also the newly incorporated outside content. I planned to align these standards and learning targets with the visual arts rubric already used in my classroom. Creativity was identified through the examination student drawings. This focus on artistic work situated learning inside the visual arts classroom, and provided students a more diverse opportunity to provide evidence of learning. Through this alignment I hoped to create a framework to plan, implement, and collect data on the relationship between creativity and integrated lesson planning.

When reviewing the literature I placed a large focus on the integration of the visual arts with other content area learning. This developed through the course work I was completing in a Master in Teaching program, as well as my own personal interest. The literature process was quite interesting, and I greatly looked forward to combining the concepts of integration and creative thinking. Though I was not entirely sure what this looked like, I felt confident I would figure it out on the

ground, as I began to apply the multiple practices I had been reviewing. I therefore went into my action research project questioning the ways students express creativity in the arts classroom, and the affect that creativity had on their ability to participate in integrated content lessons.

However, as I entered into my first of two student teaching placements, I found myself overwhelmed with the obligations that came with my position. The task of creating engaging and influential visual arts lesson plans became my focus and I was not able to apply the integration segments that were needed to deeply engage with my research question. The combination of student teaching, gathering researchable data, and applying for state credentials proved to be a challenging combination. Due to the inescapability of teaching and state tests I chose to narrow my research examination to focus my research attention onto my students' ability to apply creativity in their drawings. I believe this reorganization allowed me to better focus my attention and data collection, which lead to a deeper, more meaningful understanding of how creativity can be tracked and assessed in a visual arts classroom.

While my action research project did not directly apply the practical methods of integration as they were examined in chapter one, the project did rely heavily on the theory and reasoning behind the practices described. Knowing that the literature review would be applicable to my findings, the new question I posed was: In what ways can creativity be effectively tracked in a visual arts classroom? This question was formed in mainly two ways.

First, was a consideration of what data I was able to gather. As my original question included both creativity and integrated lessons it was a clear process to focus on creative thinking in this research project, which could then be applied to integration in the future. As stated in the quality indicators section, my relative lack of experience as a teacher made creating effective integrated lessons at this time a sizable challenge. Modifying my research question to exclude the effects of integration allowed me to focus more deeply on creative thinking.

A second influence on my decision to adapt my research question came through my own experience as an action researcher. As I began to collect data on my students' creative thinking I became more interested in tracking this ability as it was represented in their drawings. As students developed their sketchbook entries it became clear that these documents were becoming rich with information. Focusing my study on the tracking of creativity allowed me to take advantage of student engagement in sketchbook entries.

Two distinct links remained between my modified research question and my review of the literature. First was the focus that remained on students showing evidence of learning through their creative use of drawing. Promoting an additional method of communication in the form of drawing, rather than relying on writing alone, supported student engagement in the development of creativity. This promoted greater access to multiple forms of expression, which benefited my students' ability to communicate (Gee, 2001; Gallas, 1991). Second, I continued a distinct focus on tracking and assessing student learning through their visual work, as described by Mishook and Kornhaber (2006). This was done through several

drawing exercises that are described in the following section of this paper. In my study I focus on identifying learning in terms of creativity, and my methods could, in the future, be effectively targeted, in additional studies, toward integrated content learning. Due to these links, my data collection, analysis, and findings remain relevant to the question of how creativity in the visual arts classroom influences integrated lesson planning.

CHAPTER 2: METHODS

Action and Practice

To fully engage my revised research question I tracked student drawing throughout a ten-week period. My study began on day one of the 2014-2015 academic year, which allowed me to collect data on students who had never participated in a visual arts class. On the first day of class students were asked to complete a survey outlining their viewpoint of creative thinking (appendix), as well as a 4x5 drawing of anything they wished. At multiple stages in the study participants completed the Torrance creativity test. The Torrance test was given on the first and final days of the study period.

During the second week of the study students created, and began using, sketchbooks. These sketchbooks were used for assigned activities, as well as non-assigned drawing. Students were prompted to work in their sketchbooks at the beginning of each project, and several used their books more often for personal work.

Surveys, initial drawings, Torrance tests, and sketchbooks were then compared to develop an idea of the level of creativity shown in student work. This combination of quantitative and qualitative data outlines the effectiveness and usefulness of tracking creative thinking in students of a visual arts classroom.

Participants and Site

This study was completed at a high school that serves middle to high socio-economic suburban community, with a relatively small portion of the 1,300 students who qualified for free/reduced lunch (26%). Similarly small numbers represent

students of color at the school; 7% Asian, 7% Asian/Pacific Islander, 2% Black, 8% Hispanic/Latino. These numbers are similarly represented in the visual arts courses at this school. Inside of this setting, 125 students participated in the study. These were students of drawing, painting, and introduction to art courses. Of the participating students there were nine ELL, fifteen 504, and four students with IEPs. In each class student ability was varied, and was most notable in period one of the draw/paint course. In this class advanced students had been incorporated into the intermediate class. In this instance advanced students have higher standards for course work, but also participate in full group discussion. Advanced student work was evaluated separately from that of beginning students. This separation provided a deeper understanding of the development of creative thought in the visual arts classroom.

The classroom I was working in was designed to function as a drawing, painting, and ceramics studio. Students sat at large tables in groups of 3-6, and often shared materials inside of these groups. Materials included several art specific supplies such as acrylic/water color paint, pastels, a variety of pencils and markers, x-acto knives, scissors, etc. My classroom was being used for three 50-minute visual arts classes throughout the school day. Instruction ranged from five to thirty minutes per class depending on what section of a project we were working on, and varied between direct and student-lead activities. During the introduction of a project we spent a greater amount of time on full class instruction, while towards the end of a project the students used their class time for studio work that could not be done outside of school. During studio time the students received one-on-one

instruction on their individual projects. Several resources were applied in my classroom to help assist in the instruction of visual arts. I frequently used a digital projector and document camera to provide visual examples of professional works as well as previous student work. The art room itself had multiple posters outlining the elements and principles of art, as well as additional examples of student works. These were used as resources for students as they worked on their own projects. Students were also encouraged to draw from a collection of visual images when needing source material to draw from. These images were gathered either through binders I kept in the classroom or the internet. A wide range of art making materials was available for students' specific needs. For example, I had a variety of specialized paper in the supply room, as well as paints, markers etc., which were available for student use. This supported students in making their own choices in medium use, and provided them with the materials needed to succeed in that choice.

At the time of the study I was a student teacher in his second year of a master-in-teaching program. I was carrying out a ten-week student teaching placement at the study site, and had worked inside of the school for eight months prior to this placement. Through this previous work I had gained a strong understanding of the role of visual arts program, as well as formed relationships with some of the visual arts students.

Creativity Survey

To properly identify the creative thinking of students it was first necessary to examine the ways in which the students think about creativity. On the first day of the study student participants filled out a survey to outlined their stance on

creativity. The survey was designed to focus on three mindsets linked to creative thinking: creativity as a developable skill, the link between creativity and the visual arts, and the value of creativity. Students were asked to respond to fifteen statements. Participants checked a box marked either *strongly disagree*, *disagree*, *agree*, or *strongly agree* for each prompt. An additional portion of the survey asked students to order the importance of several art related activities (see Appendix).

The data collected from this survey provides a clear description of the mindset of students as they enter a visual arts classroom. In addition to laying out students' preconceived ideas of creativity, the survey also provided a rough idea of student viewpoint of the usefulness of creativity in their greater education experience. Finally, the survey provided the groundwork for how to approach the concept of creative thought as I outlined the course curriculum.

Initial Drawings

On the first day of the study session participants were asked to create a drawing on a 4x5 card. There was no prompt given besides the direction to draw something they enjoyed drawing. Students were given approximately five minutes to complete the task. This exercise was performed to create self-directed visual data for each student's creative thinking ability, as well as to get a feel for the groups drawing skills. At this point in the study most students had had extremely limited experience with art materials or practice inside the visual arts classroom. In addition to this lack of practical experience, students had not yet participated in classroom discussions.

Though the initial drawings are similar to the Torrance test of creativity in product there are distinct differences of intent that situate these drawings as valuable data. Due to the lack of visual arts input, participant responses show a purity of thought. This intent is shown clearly in the initial drawings, which provide a source of information of each student's creative thinking as they enter the visual arts classroom.

Torrance Test of Creative Thinking (TTCT)

Study participants filled out a form of the TTCT that focused on drawing twice during the study session. This test is a 6"x4" box containing the beginning segment of a drawing, which printed on an 8.5"x11" sheet of white paper (see appendix). Participants were each given a copy of the test along with instruction that it was a creativity test. They were then told there was no right or wrong answer, and that it was meant to see how they thought while they drew. Participants were instructed to use any method of drawing they wanted, with whatever tools they had nearby. After allowing for questions, participants were given five minutes to complete the test, at which point the TTCT's were collected and organized by class.

Students first took this test during the second week of the study session, at which point it was described as a visual way to examine creative thought. This iteration provided a baseline for student answers in conjunction with the initial drawing and creativity survey. At the end of the research period students again took the test as a final unit of data. This data set was used in comparison with the first test application to identify changes, if any, in students' creative drawings.

The test is designed to be accessible to all individuals equally, as it does not rely on reading or writing. This ensured my ability to access each student participant in my study, regardless of his or her developmental ability, or familiarity with the English language. As a test it is intended to be non-threatening because it asks individuals to respond to a simple drawing, and there are no correct answers. Student response to this document varied largely between individuals, and was evaluated using qualifiers outlined by the Torrance himself. Though there are multiple forms of this test, I applied only one during this study. This was done in order to provide clear and focused analysis of the development of creative thinking, and to avoid influence of novel experiences on study participant data.

Sketchbooks

Student sketchbooks were used for journaling, project planning, and personal drawing time. Sketchbook work was administered in class, and encouraged outside of class. Journaling took place in response to group discussion each week during the study. Sketchbooks were also used for sketches or studies at the beginning of each project. Finally, students were highly encouraged to use their sketchbooks for personal drawing projects during open studio time, as well as outside of class. In general, sketchbooks provided a safe place for students to reflect on personal experience, test new material/processes, and develop drawings. The use of sketchbooks provided a space for students to apply creative thinking through prompts and personal interest.

Students, in general, began using their sketchbooks as an area to draw a limited amount of subjects. These were often scenes from cartoons or video games.

Such sketches do not provide evidence of student driven creativity. Therefore, directions were given to encourage students to incorporate their own ideas in these types of drawings. These instructions came through guided reflection prompts, as well as one-on-one conversations. Sketchbooks can be difficult to assign because the student must dedicate their own time to complete entries. During the research period, I provided class time for these works, while also encouraging out-of-class work. To drive this work I began associating a grade with sketchbook use starting in week six of the study. This grading was focused towards students responding to specific classroom prompts, which required both drawn and written work. I provided comments for student work in the form of written notes. My responses focused student thinking to project-specific needs, while also encouraging student directed sketchbook use.

Creativity Survey

Analysis of the creativity survey was both quantitative and qualitative. I first began evaluating the data through statistical analysis. Each prompt was examined individually throughout all study participant responses, and an average score was determined for each prompt. This method provided a clear view of the participant groups' level of agreement toward each prompt. Identifying the average group response allowed me to better understanding my students' viewpoint of creativity.

As I examined survey results through a quantitative lens I realized that I was gaining an idea of the groups' stance on individual prompts, but I was missing out on a wealth of additional data. Going back to the data I examined each survey as a representation of an individual's stance on creativity. As I reviewed the surveys

through a qualitative lens I saw patterns in participant responses. Links developed between student understanding of creativity as a developable skill, the link between creativity and the visual arts, and the value of creativity. I identified these patterns by creating zones of student responses. Areas of the survey aligned with each of the above factors, and it was therefore possible to review responses through an analysis of where participant scores were in close agreement.

Initial Drawings

My first evaluation of the initial drawings was relatively ineffective for identifying creative thinking as it is represented in visual art. This was due to two factors. First was the dual task I hoped for these drawings to serve. Though I knew these 4x5 drawings would offer valuable information for my research question, as they would provide evidence of creativity uninfluenced by my classroom, I also planned to assess student drawing ability through these drawings. Using these works as a pre-assessment of students' visual arts ability influenced my identification of creativity. As I examined each drawing I evaluated the drawing through the lens of an artist, which placed value on the use of the elements and principles of art as a tool set for effective drawing. As expected with beginning students, there was relatively little application of these tools. I viewed this lack of tool use initially as a qualifier for both artistic skills and creative thinking.

The second factor that influenced my analysis of this data set was a lack of qualifiers that would signify creativity in participant work. Without a set list of qualifiers I found myself categorizing drawings on terms I felt at the time showed

definitive evidence of creative thinking, only to reclassify drawings on my next examination.

After several rounds of examination I adopted the qualifiers designed by Torrance as a key to identifying creativity. Due to the proprietary nature of this information I was not able to gather these directly from Torrance. However, I was able to locate them through Indiana University's school of education (Bank, 2011).

These qualifiers are listed as:

- Emotional expressiveness
- Storytelling articulateness
- Movement or action
- Expressiveness of titles
- Synthesis of incomplete figures
- Synthesis of lines or circles
- Unusual visualization
- Internal visualization
- Extending or breaking boundaries
- Humor
- Richness of imagery
- Colorfulness of imagery
- Fantasy

With these qualifiers in hand I was able to reevaluate the initial drawings more accurately in terms of creativity. During this second evaluation I viewed each initial drawing in terms of the above qualifiers. I then applied a numerical score for each drawing, which reflected the number of qualifiers present in the drawing.

Drawings were organized into groups by score, and each group was again examined to determine the accuracy of the category, at which point some drawings moved up or down in scoring. This was done to solidify each score group.

Torrance Tests of Creative Thinking (TTCT)

When I viewed the first round of TTCT's, I went through a process similar to my first viewing of the initial drawings, attempting to code the key characteristic of

each test drawing. This viewing resulted in a long list of drawing subjects (dog, hat, mountain, etc.) and characteristics (title, action, multiple figures). Results varied greatly between tests, and no clear results could be identified. Reviewing my coding, I recognized that this method was resulting in an unruly scattershot of information. Through this review I identified subcategories within the coding. Some examples of these subcategories were; *subject, setting, word use, pattern*, etc. Viewing the tests through *subject* provided a framework to separate commonalities and outliers. While this review method gave some information regarding participant application of creativity, it only identified creative thinking in terms of subject, and therefore failed to identify creativity as it manifested in other subcategories. Furthermore, I recognized that some of my identified subcategories were scoring information that did not show signs of creativity in participant drawings. For example, scoring *pattern* identified participant use of an element of art, not creativity. This recognition showed me that I was allowing my bias as a visual arts educator to affect the coding of TTCT data.

At this point in my research I identified the Torrance qualifiers, as stated above. With these as a guide I re-evaluated the TTCT's of my participant pool, and assigned numerical scores to each test result, assigning one point per qualifier exhibited in the work. After this evaluation, TTCT's were categorized by numerical score. Each score group was re-examined, at which point some test results moved up or down in category. The second iteration of TTCT's was evaluated in this same method, and was kept separate from the first iteration.

Sketchbooks

Participant sketchbooks were collected and evaluated at the end of the ten-week research period. Sketchbook entries varied greatly between individual participants. Participants were prompted to make entries into their individual journals on nine occasions during the research study. Prompted entries included both drawings and written reflections of classroom discussion topics. In addition to these entries a significant number of participants (70%-80%) used their sketchbooks beyond the required minimum. I expected to have some students create additional entries, however the number who did was far greater than my expectation. Due to the wide range of data included in each sketchbook, I applied a largely qualitative lens when analyzing this data set.

When evaluating visual sketchbook entries I coded for the TTCT qualifiers with a similar process as the initial drawings and both iterations of the TTCT. In addition to these qualifiers I also noted the distance a self-directed entry moved away from classroom projects. For example, during week three of the study period the beginning drawing class assignment was focused on the use and application of line to create contrast of harmony and discord. Students then applied these concepts to drawings of hands. During this time period, participants produced a wide range of visual entries. Nearly all sketchbooks included the prompted topic of harmony and discord. In addition to these sketches, several participants created visual entries that did not relate to this topic, at least not directly. All sketchbook entries were coded in terms of their relationship to the current project. Those entries that focused on harmony/discord in hands received a numerical score of 1, those with

evidence of harmony/discord in other drawn subjects received scores of 2, and those with little or no connection to the current project were given scores of 3. A score of 3 identified participants using high-levels of creativity in their sketchbooks. These numerical scores were used in conjunction with the TTCT qualifiers to determine the range of creativity participants were applying to their sketchbook entries.

Quality Indicators

To increase the strength of my study I reviewed and applied a variety of quality indicators as described by Mertens (2009). Through the application of multiple data collection techniques I was able to gain a multifaceted view of the participant group, which supported triangulation in my findings. When initially coding my data, I recognized my bias as a visual artist and as an educator. Applying the TTCT qualifiers removed some of this bias, increasing dependability, though surely not all. Throughout the data analysis process, I have several times had other student researchers review both my data and my findings. The individuals' experience as researchers was limited, yet these peer reviews came to similar conclusions as my own. In general these findings reflected those represented in similar research studies.

Specific limitations to the study include the relatively small participant number, shortness of study session, and lack of my own experience as a researcher. My student participants gave a strong example of the study site population, but were also only a representation of that site. Findings could not necessarily be accurately applied to other sites, therefore lowering the studies transferability. Furthermore,

these participants represented a limited range of high school students in terms of socio-economic background. Many students had additional support outside of school, which may have affected their ability to dedicate time to creative processes.

Participants not of this socio-economic group would have limited time and resources to invest in such work. These individuals would most likely participate in creative thinking through other methods than those examined in this study.

CHAPTER 3: RESEARCH FINDINGS

Through the above-mentioned practices I have collected and analyzed a variety of data. Collected data did not shed light on my original research question, but it did prove useful in understanding my reorganized research question. Again, The new question I posed was: In what ways can creativity be effectively tracked in a visual arts classroom? Using this new research question I was able to identify three main findings.

Growth Mindset in Creativity

The first set of findings I identified regarded student thought on creativity as they enter the visual arts classroom. This finding developed largely out of my analysis of student responses to the creativity survey. Participants overwhelmingly agreed with the comment, "Creativity can be developed." 87% of students either agreed or strongly agreed with this comment. Additionally, nearly 90% of students agreed or strongly agreed with the statement, "teachers should grade creativity in the arts." This combination of strongly favorable responses surprised me as an arts educator. I entered this study feeling it would be more valuable for students to learn creative thinking than to simply acquire visual arts skills. High responses to these two statements show that students entered my classroom feeling they could develop creativity, and were open to being assessed on their ability to show evidence of creativity in their drawings. Knowing students will enter my classroom with this growth mindset towards creativity allows me to enter directly into a creativity-focused curriculum.

However, students showed signs of being unclear of how this type of curriculum would exist. In response to the statement, “creativity is difficult because the way your work is graded,” participants had mixed responses. The survey allowed participants to respond as either *strongly disagree*, *disagree*, *agree*, or *strongly agree*. About 70% of students either agreed or disagreed. While this could be interpreted as a strong split in thinking, I believe it is a sign of uncertainty. I believe this created a spectrum rather than distinct categories. Therefore a grouping of responses as high as 70% shows similar thinking. It is my analysis that students have mixed experience with having creativity graded, which is expected in a traditional public school. Therefore, in a creativity-focused curriculum, students would require explanation of the types and methods of assessment on which they will be evaluated. Clear explanation of evaluation criteria and method would greatly benefit students’ ability to succeed in showing evidence of creativity in their drawings.

Creative Thinking Ability vs. Preparedness

Reviewing the first round of TTCT in combination with the initial drawings provided a strong example of the level of creativity students were ready to apply in the first week of a visual arts class. These sets of data, alongside student sketchbooks, showed a low engagement of creativity in participant drawings. Participant entries on the TTCT rarely scored more than 3 qualifiers, with the average at 1.5 per test. Similarly, the initial drawings included very few qualifiers. Beyond a general lack of qualifiers, these drawings were often of non-original concepts. For example, several participants created drawings of favorite anime or

video game characters. While these drawings provided information about individual drawing abilities, they showed students were more likely to reproduce characters than create their own. Another example of non-original concepts was shown in the similarity of several students initial drawings. An example of this is the scene of a house on a hill with a tree next to it. This is a very common depiction in child drawings, and its reproduction shows a tendency to draw what has been seen or drawn before.

Furthermore, participant sketchbooks received little attention in the first weeks of the study. Entries were almost completely in response to instructor prompts. These entries were minimal in their development, and often took up very small areas of the sketchbook page. Lack of development and small size of sketches shows the participants' lack of engagement with the creative process of sketching ideas. Therefore, it is seen that at this early stage, the research study participants had yet to fully embrace their sketchbooks as an avenue of creative engagement. This combination of data shows a general lack of creative thinking in participant work.

I believe there are two main factors that influenced this finding, and that each played a role in the data. First is the idea that several of these individuals had not yet participated in a visual arts class. Therefore, their experience with thinking creatively through drawing may have been very limited. Participants under this category may have been able to think creatively, yet not have been able to show evidence of such thinking through drawing. This limitation would have skewed the data by showing a lack of creative thinking when one did not exist.

A second factor is students' unfamiliarity with a classroom environment as a creative community. I believe this may have influenced participant drawings in the form of self-censorship. Starting the research study on the first day of school provided a great opportunity to identify initial thinking of participants, but it also may have identified a certain hesitation for students to express themselves. Several students, especially those new to the research site school, surely felt vulnerability in a new setting. This would have been due in great part to the social implications of being in a new environment and surrounded by new faces. In this situation, individuals are often more concerned with fitting in than standing out. Therefore, participants may have censored their expression of creativity in the initial drawings and TTCT to create drawings that would be perceived as safe or average.

Due to these possible influences it is difficult to fully embrace the finding that participants had a low ability to think creatively in the visual arts classroom. However, this set of data, viewed in consideration of the above influences, provides insight into the level of creative drawing students were prepared to exhibit during the first two weeks of school. Therefore, the concept that there is difference between students' creative thinking ability and preparedness of those students to show evidence of creativity in their work is a valuable finding of the action research study.

Effectiveness of Tracking Creativity as Expressed Through Drawings

Through the analysis of my data it became clear that study participants greatly improved in their ability to show signs of creative thinking in a visual arts classroom. The second round of participant TTCT's showed a deep growth in

creative thinking. Participants' results scored 3.5 qualifiers on average, with some drawings including up to 7. This shows an average increase of over 100% from the first round of TTCT. Similarly, participant sketchbook entries began to evolve into rich examples of creative thinking.

Sketchbook entries at the beginning of the study period consisted of limited creative evidence. As the previous finding discusses, this could have been due to a ranges of influences. However, clear growth of creative expression was shown in two distinct manners as the research period continued. First was the development of the quality of entries as ideas for future work. Participants were able to use sketches as a means to develop ideas and concepts in relation to specific prompts. Examples of idea development were the creation of multiple sketches of a single idea, as well as large, detailed preliminary drawings. The creation of these types of entries shows participants were exhibiting signs of thinking creatively.

Secondly, participants began to use their sketchbooks outside of classroom prompts. During free time in class, and time outside of art class, students used their sketchbooks to explore ideas unique to them as individuals. These entries took many forms. The most common were drawings that identified personal interests of students. For example, several students created and recreated original characters. These often took the form of anime or comic book heroes, but they were of the students' own design. Another example would be the development of original art techniques. Many students used their sketchbooks to explore materials in ways that were not taught in class. The exploration of creative material application shows student engagement with creative thinking.

Overall the sketchbooks became a space for study participants to explore their own ideas. I believe this came through the process of taking ownership of the sketchbook as personal space. This ownership first began to develop through the making of the sketchbooks themselves. Prepared materials were provided to the students, and then each student sewed their own book together. The act of building these sketchbooks provided a value in the final product, and created the foundation for a more meaningful relationship between students and their sketchbooks. Classroom prompts and exercises pushed students to begin using their books to develop ideas. Finally, open class time was offered to provide students with the opportunity to begin exploring the individually specific ways the sketchbooks could be applied. Both the development of entries and the use of sketchbooks as a creative space show that participants' thinking moved from minimal to deep creative expression.

Summary of Findings

Study participants were much more likely to be open to focusing on the development of creativity in the visual arts classroom than I had originally expected. This was clear in the results of the creativity survey, as well as the participation in sketchbook entries as the study developed. Participants were also open to the idea of being assessed on their creative ability, though only with clear expectations. Though initial evaluations had several uncontrollable influences that blurred a clear understanding of participant ability, I was able to gain a strong understanding of preparedness to show creative thinking in a visual arts classroom. Both preparedness and ability became easier to identify and more present as the amount

of time students spent in the visual arts classroom increased. It is therefore clear that in this study I was able to effectively track participant creativity through the application of the creativity survey, initial drawings, TTCT, and sketchbooks.

Implications For My Teaching Practice

Through the above findings I have identified three distinct implications for my teaching practice in the future. First is the concept of a creativity-focused curriculum. It has long been my belief that developing creative thinking skills and the ability to apply these skills to a range of problems is the most influential learning that can occur in a visual arts classroom. Combining these skills and abilities provides the students with a distinct tool set that can be applied in all areas of their future learning and work. The target of a creativity-focused curriculum would be on these overarching abilities and skills. I was surprised to identify student interest and buy-in through the creativity survey for such a curriculum. This finding leads me to believe that with the proper design, especially in regards to methods and targets of assessment, a creativity-focused curriculum would be highly effective in the visual arts classroom.

A second implication for future practice is the effectiveness of using hand-built sketchbooks as a tool for developing both creative ideation and personal expression. I have assigned and witness several sketchbook systems in the past, and these have had highly mixed results. The sketchbooking practice is often difficult to maintain in a classroom due to a range of interest and buy-in. Providing students the means of creating their own sketchbooks, and the class time to work in this book, supported student interest and buy-in. Additionally, characterizing the sketchbooks

as personal space through guided prompts supported the development of relationships between individuals and their sketchbooks. They took ownership and pride in their books. Students' ownership and pride was then linked to both the sketches and, somewhat more importantly, to the practice of sketching.

After concluding this research I continue to wonder about the effectiveness and the implications of tracking creative thinking in this manner. The TTCT provide a framework for reviewing creative thinking, however, the evaluation of student work, even with the TTCT qualifiers, was a largely biased process. Though I attempted to view the TTCT results and student drawings through a non-biased lens, I do not believe I was able to fully remove my preconceived ideas of what creative thinking looks like in a visual arts classroom. Yet, I also wonder if I should be applying my bias, for my bias is largely a construct of my wide range of experience in both the visual arts and the public education system. In this light, my bias can be applied as an accurate understanding of the needs and expectations of my students. This viewpoint situates this implication for future practice specifically towards my own practice, and may reduce the transferability to other researchers or educators. Furthermore, if I take on this viewpoint I would need to make clear expectations for my students a paramount aspect of creativity-focused curriculum design.

Suggestions For Future Research

Upon completing my action research project I have identified several areas of concern for future research. First off would be an examination of my original research question. The implications of creative thinking on an integrated curriculum

remain unknown to me, and were not well defined in the literature. Several theorists have made suggestions and claims linking the two, but there has been little research to support their claims. Research that has been completed on this subject tends to be highly qualitative in its method of analysis, which may be a result of the general difficulty of identifying and evaluating creative thinking. I believe this question can be approached through either a visual arts classroom, or another content area, but there must be a clear link between the two.

Another interesting question I have come across, which was not well represented in the literature, was the question of how students react to a creativity-focused curriculum. There are several implications to this model of visual arts lesson-planning that would greatly influence the students. For example, students would need to buy-in to the idea of developing creativity skills over visual arts skills. Though the majority of my study participants seemed open to this idea, this result cannot be expected in all classrooms. Assessment of creativity, as well as school support, would also influence this method.

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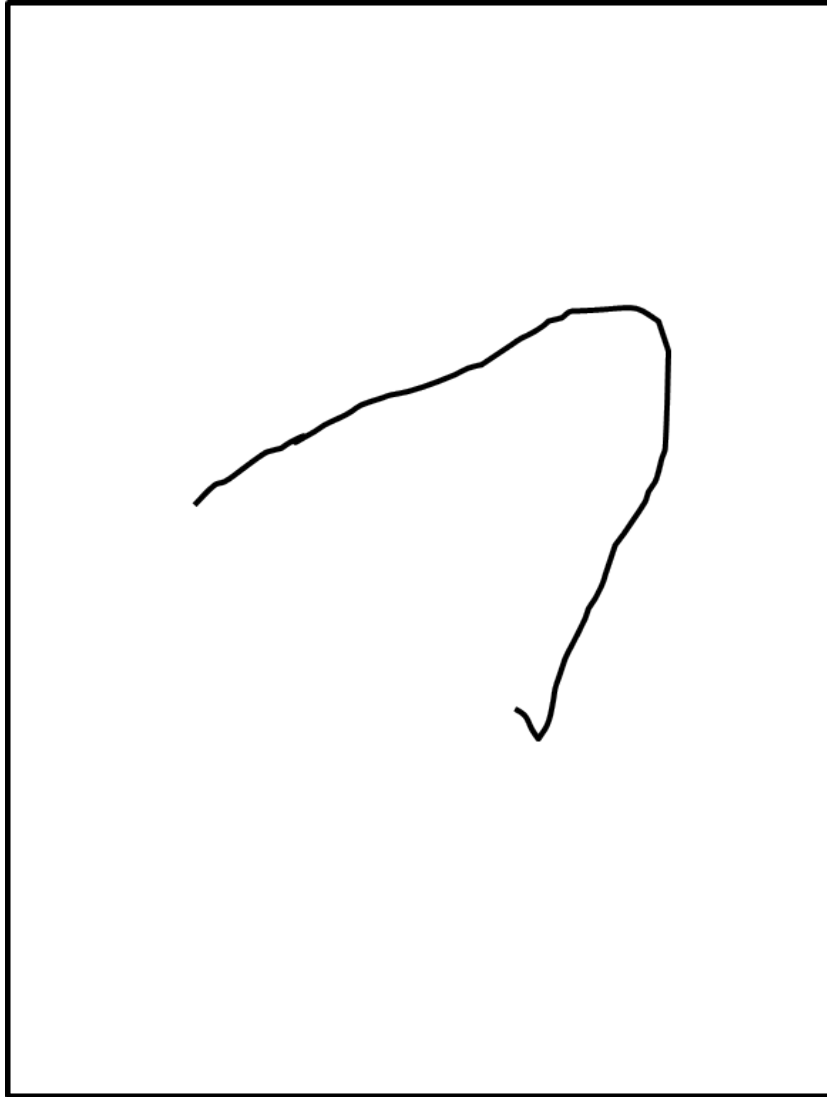
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APPENDIX



Torrance Test of Creative Thinking: drawing test given to participants

How much do you agree with these statements about creativity?

strongly --- disagree --- agree --- strongly disagree agree

Creativity can be developed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Craftsmanship is an important part of creativity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning arts skills is more important than creativity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A person can show creativity without arts skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced arts skills enhance a person's creative ability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity is best shown through a finished artwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity can be seen in the process of creating an artwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity can be used when in classes other than art.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Children's creativity is different than adult's.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity in the arts develops through different stages.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The school encourages creative behavior.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teachers should grade creativity in the arts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity means different things to different people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity is difficult because the way your work is graded.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity can be learned from your peers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which statement do you agree with more:

- Creativity can be developed in groups. OR Creativity is better developed individually.

Put these in order of importance from 1-5: One being the least important and five being the most important

- ___ Viewing art in a museum
- ___ Talking about art in a group
- ___ Reproducing an artwork
- ___ Creating a new piece of art
- ___ Looking at images online