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**The Effects of Visual Art Integration on K-12 Critical Literacy**

by

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## Chapter I: Introduction

During my lifetime I have been consistently involved in the visual arts in one capacity or another: as a student, artist, teaching artist, illustrator, educational coordinator, board member, and as an arts advocate. I have also acquired more than 20 years of experience specifically in the field of art education, and presently I am the Art Education Program Director for a regional art center.

I did not begin my professional career as an art educator. Becoming a teacher was an evolutionary process. My first professional pursuance was as an illustrator, as that was my first university degree. Illustration is primarily about a clear and concise manner of visually communicating information, or an idea. What interested me about illustration was the challenge of thoughtful problem solving, which is needed to visually, and successfully, represent the intended message. Illustration requires much preparation and research to master the content being presented, otherwise it will be ineffective. The process of producing a visual involves thinking about how others will interpret your message and attempting to make the content effective to all. Producing a visual is a way of connecting people with thoughts and ideas. In this regard, illustration and education strive for the same result – this connection of people to thoughts and ideas. After working as a teaching artist in community education programs and two art centers, I realized that my goal as an artist – to communicate ideas - aligned with art education goals, I chose to pursue an art education teaching degree. After becoming an art educator, I soon realized the importance of infusing art into the core subjects, not only to raise awareness of art program relevance, but to enhance student achievement across the curriculum.

Researchers from the Johns Hopkins University School of Education argue that instruction becomes more effective when educators integrate creative activities and make them central to academic development. Across disciplines there is room to improve student performance with the incorporation of creative skills. (University of Florida; Department of Education, 2022). This brings us to the connection of art education to visual and critical literacy.

Written language and visual language share similarities in that different words have different meanings; just as different images have different meanings. With the inundation of visual images from social and digital media, learning from different contexts and structures has become more important than ever (Kariainen, 2013).

Visual literacy in art education and critical literacy go hand in hand. Art education is the area of learning based upon visual, tangible creating. (Grantmakers in the Arts, 2022). Using critical literacy takes the reader to a deeper and more effective understanding of the text. Critical literacy encourages readers to question their experiences and environment and to create abstract thought (Beatty, 2013). Visual literacy is the result of combining these concepts. Visual literacy uses images to promote critical thinking for deeper and more in-depth reading comprehension (Kariainen, 2013).

### **Purpose of Study**

As the perpetual struggle with finance, state regulations, and Common Core State Standards continues, school districts are forced to cut non-core subjects that they mistakenly consider as nonessential (Minnesota Department of Education, 2020). Art community advocates disagree and affirm that what visual art and art education teaches students is, in fact, essential. In May of 2020, a unified statement titled “Arts Education is Essential” from over 50 arts and education organizations were released. The focus of this statement is on the necessity of arts education for all students. With a unified front of organizations working to preserve arts education, educators, and other stakeholders are given support and a plan for advocacy for their programs. (National Art Education Association, 2020). Visual literacy studies have shown that the arts, particularly visual art, can increase critical thinking and comprehension across the curriculum (Beatty, 2013).

Research in critical thinking, reading comprehension, visual literacy, and art education provides evidence for the needed impact of art in relation to critical literacy. Based on the impending issues schools face with strict standards of learning in the core subjects, and the

omission of the arts, opportunities for visual learning in art education are being diminished. With the focus being on curriculum structures of math, reading, and science, it is imperative that that focus be shared with art education and visual learning to ensure a comprehensive educational experience.

In today's world, especially with the impact of technology and digital media, the use of visuals is becoming more and more prevalent. The current era has become known as the "digital age"; however, it may be equally accurate to refer to this era as a visual age (National Art Education Association, 2016). The need for visual literacy in the age of the internet and social media brings heightened importance to the role of art education in society. Art educators help students build the recognition, perception, sensitivity, imagination, and integration skills needed to make sense of the world around them (Eisner, 2002). Research suggests that there has been a considerable shift in the balance between words and images, prompting new forms of literacy (Brumberger, 2011).

More than ever, language extends beyond words. With the current immersion into visual culture, visual literacy is becoming increasingly important, and there is a heightened need for visual literacy to be incorporated into pedagogy. Henry Giroux's Critical Pedagogy, a philosophy of education and social movement, supports the essential importance of correlating art education and critical literacy. Giroux developed Critical Pedagogy as a praxis-oriented educational movement which emphasizes thinking, analyzing, understanding, and applying. (Giroux, 2010). Giroux also supports beliefs that teaching with technologies is a common thread to surmount the limitations of pedagogies of the past. Infusing art education with critical and digital literacy can assist in achieving this goal (Giroux, 2010).

### **Research Questions**

Visual literacy in the 21<sup>st</sup> century is of the utmost importance as students are interacting with visual materials with increasing frequency and immediacy due to the digital age (Brumberger, 2011). Visual learning is prevalent more than ever in today's society, and, thus, there is a need

to integrate arts infused educational strategies to promote visual and critical literacy. The two research questions guiding this paper are as follows:

1. What is visual literacy and why is it significant for the 21<sup>st</sup> century learner?
2. What effect does art education and visual literacy have on increasing critical literacy in K-12 students?

### **Definition of Terms**

Definition of key terms needed to understand the focus of this paper are as follows:

*Art Education* - A collective term referring to a comprehensive and sequential education in separate and distinct artistic disciplines. (Grantmakers in the Arts, 2022).

*Art Integration* - Used as an overarching term for the incorporation of the arts in the general education classroom as a means to build connections within a curriculum. (Sorensen, 2010).

*Critical Thinking* - The intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection. Reasoning, or communication, as a guide to belief and action. (Ryan, 2022).

*Critical Literacy* - Views readers as active participants in the reading process and invites them to move beyond passively accepting the text's message to question, examine, or dispute the power relations that exist between readers and authors. It focuses on issues of power and promotes reflection, transformation, and action. (Park, 2012).

*Digital Literacy* - The ability to navigate, evaluate, and create information using a wide range of digital technologies effectively and critically. (Carey, 2014).

*Visual Art* - Artwork, such as painting, photography, or sculpture, that appeals primarily to the visual sense and typically exists in permanent form. The area of learning based on the visible, tangible arts. (Grantmakers in the Arts, 2022).

*Visual Literacy* - The ability to interpret, negotiate, and make meaning from information presented in the form of an image. Visual literacy is based on the idea that pictures can be “read” and that meaning can be communicated through a process of reading. (Hattwig, 2010).

*Visual Thinking Strategies (VTS)* - A specific approach to whole-class viewing and talking about art that primarily uses these questions: “what did you notice?”, “what do you see that makes you say that?”, and “what more can we find?” VTS promotes thinking beyond the literal by discussing multiple meanings, metaphors, and symbols (Finley, 2014).

### **Summary**

Critical thinking is a vital asset for students in education today. Integration of art education, visual literacy, and text can be a powerful tool in the development of critical literacy. Through a review of literature and analysis of research findings, this paper will discuss the effects of art education and visual literacy in conjunction with the increase of critical literacy for K-12 students.



## **Chapter II: Literature Review**

### **Introduction**

The use of visual representations, non-linguistic forms of communication, to convey and interpret messages has existed since the beginning of human civilization. Visual literacy has evolved to include the ability to understand, apply, analyze, evaluate, and create visual material as crucial parts of a whole. The importance of visuals as a means of learning, understanding, and communicating has continued to grow even more with the advancement of new technologies. Constructing meaning through non-linguistic systems of communication is a skill that must be learned and integrated within the K-12 student culture. (Eisner, 1985). The studies examined for this literature review focused on engaging students with visual images with a focus on promoting critical literacy. Methods of data collection ranged from observation, interviews, and reflection, to written assessments. Topics of literature review include: Exploring Creative Parallels Between Visual Art and Writing, Effects of Introducing Literacy Through Visuals, Effects of Visual Literacy on Critical Thinking, Impact of Creating Visual Art on Literacy, and Impact of Art, Critical Literacy, and Social Practice.

### **Exploring Creative Parallels Between Visual Art and Writing**

For this paper's purpose, I will be focusing on visual art and one specific content area, literacy, which includes both reading and language arts. Literacy shares many characteristics with art, in that they both relate to self-expression and communication (Sorensen), 2010).

According to Bloom's Taxonomy (Harvard University, n.d.), creation is at the highest order of learning. "Typically, creativity is a positive attribute given to an individual who looks at a problem in a new and different way" (Marks, 2011, p. 53). Creativity is a useful skill for individuals and can lead to innovation, effective learning, and self-discovery. The creative process is basically the same for writers and artists in one main characteristic: the ability to explore a problem from many different angles, and for as long as it takes. Therefore, the creative process transfers across curriculum and is present in several disciplines, including visual arts and language arts. It would

seem only logical to combine the two, as they share in a similar process. Examples of the creative process for writing and art according to Davis Publications are as follows:

In Art:

Step 1 Plan and Practice - questions, discussions, thumbnails, and prelims

Step 2 Begin to Create - sketching, arranging, designing, and assembling

Step 3 Revise – rework, move and remove, improve

Step 4 Add Finishing Touches – details, color, and presentation

Step 5 Share and Reflect – exhibit, add to portfolio, and self-assess

In Writing:

Step 1 Plan and Practice - prewriting, outlining, organizing, and brainstorming

Step 2 Write a First Draft - put thoughts down on paper

Step 3 Revise – make changes for meaning and clarity

Step 4 Proofread – correct grammar, spelling, and punctuation

Step 5 Share and Reflect – publish, and self-assess (Davis Art, 2016).

Students who have the skills to analyze art such as a painting, sculpture, or photography have greater opportunity to sharpen their observation, writing, speaking, and listening skills (Zindler, 2022). A higher level of learning can be reached by bringing together the visual arts and language arts. Neither art nor literacy should be considered more important than the other in a truly integrated lesson. Each is equally important (Sorensen, 2010).

### **Effects of Introducing Literacy Through Visuals**

For new or young readers, visual literacy plays an integral role in reading and writing. When children are first introduced to literature, it is often in the form of picture books. In picture books images provide information important to understanding characters. The illustrations, or

imagery, guide an understanding of the story being told. Authors and illustrators collaborate to utilize the interaction of words and pictures to enhance the telling of a complex story. (O'Neil, 2011). Considering the significant contributions of both illustrations and written words in picture books, readers must purposefully give attention to both sign systems – both visual and verbal – to deeply understand... (Prior et al., 2012). However, reading visual images is not something children do automatically: rather it is something that must be learned.

The Kennedy Center, a digital resource for educators, suggests that there are many possibilities with visual literacy that support reading. Children are very visually literate - their world is filled with images, and this is the language they understand. A suggested strategy in engaging students as they read is to use the illustrations and drawings in the reading text as supplementary, complementary, and contrasting information (The Kennedy Center, n.d.).

Illustrators use a variety of methods to bring their characters to life. The literary element of character is critical to literary meaning-making, and in picture books images provide information important to understanding characters. (Prior et al., 2012). A study exploring the kinds of pictorial information young children use to gain insights into the characters took place in an elementary school in rural South Texas and addressed the following question: What kinds of pictorial information do young children use to gain insights into the characters they meet in picture books? Following read-alouds of picture books, second graders were shown pre-selected illustrations from the books and interviewed. The children made a variety of inferences about the characters by using the illustrations alone. Although students did not talk about specific symbols or devices used intentionally by the illustrators, particular attention was paid to character action, expressions, and the way characters related to each other. The findings suggest that young children use visual information to better understand literature yet need more instruction on what to look for. Yet, many children were not attuned to several intentional visual devices used by illustrators. As a result, teachers have important work to do in fostering children's visual literacy. Teachers must

value, draw attention to, and explore illustrations and artistic devices illustrators utilize to facilitate visual literacy and character development. (Prior et al., 2012).

The way in which we look at visual images seems to be effortless and automatic, however, the quick attention students pay to the task of visualization is not enough. Just as speaking, writing, and drawing require instruction and practice, as does the art of “looking”. We need to help our students to actually “see”. Understanding how images make meaning is the key to promoting visual literacy (Kariainen, 2013).

Many familiar reading comprehension strategies such as text-to-text connections, inference, visualizing, determining the main idea, and questioning can be applied to pictures to teach visual literacy (O’Neil, 2011). For that reason, when children are taught to read using picture books, they must also be taught to read images to promote visual literacy skills.

### **Effects of Visual Literacy on Critical Thinking**

There is a growing need in schools for the integration of visual literacy in all curricula (Beatty, 2013). By integrating literacy strategies and the visual arts program, literacy skills, creative thinking skills, and critical thinking skills can be strengthened. Critical thinking occurs when students question an idea. It also occurs when they analyze a specific issue or problem using multiple perspectives. Additionally, critical thinking can happen when a student uses constructive criticism while disagreeing with someone or something yet can support opinions with arguments. While critically viewing new information, students can find more meanings which may be indirect.

Visual literacy is the ability to interpret, negotiate, and make meaning from information presented in the form of an image, extending the meaning of literacy, which commonly signifies interpretation of a written or printed text (Hattwig, 2010). With the use of visual literacy, considered to be a staple of 21<sup>st</sup> century skills, students can “demonstrate the ability to interpret, recognize, appreciate, and understand information presented through visible action, objects, and symbols, natural or man-made” (Finley, 2014). This allows students to better interpret and

critically analyze the images that permeate their everyday life. Images can also prompt critical questioning in literature. Introducing texts which incorporate a visual element can evoke critical discussions, often uncovering personal connections between students and text. Visual literacy is invaluable to reader development in many ways. It allows gradual development of the student reader's understanding, engaging the analysis process by making it more deliberate, and enabling students to build their own interpretation, to rely on their powers of critical thinking (Minor, 2021).

A study (Korn & Associates, 2007) conducted by the Guggenheim Museum's Learning Through Art program discovered a correlation between art education, literacy, and critical thinking. The study focused on a sample of over 500 students selected for specific demographics, socioeconomic and literary criteria from four schools in New York City. Two of the schools served as the control group and did not receive Learning Through Art programming, while the other two schools received specific instructional programming lining up with the New York State English Language Arts Learning Standards. The 3<sup>rd</sup>. graders involved in the four-year study were measured on their ability to describe and interpret art and apply these skills to understanding written text. Through conducting observations, rubric-based interviews, analyzing student test scores, and case studies, professional evaluators gathered and analyzed data, guided by the primary question: Does looking at and making art teach students how to be better critical thinkers? Data from the study suggested that the Learning Through Art Program positively fostered students in becoming better learners and thinkers. Students who participated in the Learning Through Art Program showed a marked connection between their participation with improved critical thinking and literacy skills. The participants demonstrated that they had transferred critical thinking skills learned in discussing works of art to interpreting texts, including through description, hypothesizing, and reasoning (Korn & Associates, 2007).

Another approach to questioning and learning is called Visual Learning Strategies (VTS). VTS is an inquiry-based approach to questioning that utilizes the following basic questions: "what do you see in this picture?", "what makes you say that?", and "what else do you see?" (Finley,

2014). According to Moody-Zoet (2014), “using VTS in the classroom is one way to help students develop not only aesthetically but also to build on transferable skills such as: remembering or recalling information; paraphrasing; explaining; comparing and contrasting; finding and speculating; and lastly, supporting observations with found evidence” (p.18). VTS is a learner-based method that assists in building fundamental visual literacy abilities and sets a foundation upon which to build more complex critical thinking and reasoning skills (Rawlinson et al., 2007). The process of viewing – of extracting information from a work of art – builds our skills of perception and comprehension, and that the more focused and longer we look, the more the viewer deepens their understanding (Burchenal, et al., 2008).

A study by Curva & Associates (2005) which identified the interconnection between visual literacy and critical thinking was the Artful Citizen Project, a museum-school partnership funded by the U.S. Department of Education. The study evaluates the implementation and results of the arts-integrated program developed by the Wolfsonian Museum and Miami-Dade Public Schools. The pilot-program took place over a three-year period in third through fifth grades and was part of the core language arts and social studies curricula for participating schools. The study used VTS to increase visual literacy to improve critical thinking abilities which, in turn, would yield improved academic and personal outcomes. Researchers Curva & Associates (2005) found that students participating in the program had higher growth rates in visual literacy than students in the comparison school. There was also a strong correlation between the participants’ growth in visual literacy and growth in academic achievement in reading and mathematics. The researcher’s study of the program implementation also found that it led to the development of students’ critical thinking skills (Curva & Associates, 2005).

### **Impact of Creating Visual Art on Literacy**

Visual literacy is a *learned* skill set that can assist people in thinking critically about visual information. It is a set of abilities that enables students to effectively locate, interpret, evaluate, use, and *create* images. Complete literacy also includes the ability to understand, respond to,

and talk about visual images (National Art Education Association, 2015). When students are taught to describe, interpret, and analyze visuals, it enhances their powers of verbal expression (Mathieson, 2015). Schools stress the importance of effectively communicating through reading and writing, however, the potential to communicate through the creation of artworks and images is often not utilized. Mathieson (2015) found that “art is often described as a universal language, its strength lying in its ability to speak to all people and cultures. However, the potential art has to support language, particularly reading and writing, all too often goes unrealized in education” (p. 3).

A study by Mathieson (2015) with the focus of determining how integrating visual arts activities into reading lessons could impact students’ literacy skills took place in a suburban Minneapolis, MN school. The study included three sections third grade students, ages 8 to 9, who were transitioning from “learning to read” to “reading to learn”. The action research project, led by Erica M. Mathieson, took place in the art room during regular school hours. There were 78 total students, ranging greatly in reading, comprehension, and artistic ability. All students were fluent in English and were similar in demographics, including race, socioeconomic status, and education. The data was collected using comprehension tests, student/teacher reflections, and information gathered from the students’ artwork. Student literacy skills did show gains because of this intervention. The study also exhibited ways in which visual art teachers can be valuable participants in the push to integrate comprehension for many students. Students also showed an increased sense of engagement and enjoyment for reading when the artwork was involved (Mathieson, 2015).

Students can integrate and retain knowledge when they are given the opportunity to create relevant artifacts. The process of creating artworks and relevant artifacts allows students the power and ability to communicate concepts they may have difficulty with articulating through speech or writing (Fung, 2013). By using art to respond to a text, students can often provide greater detail and description than they may provide in an oral or written response. Sketch-to-

stretch is an effective reading / visual arts response strategy. Students read an assigned text or passage then sketch an event or idea from the story that has just been read. Students are given a time limit, so they remain focused on the content, not necessarily the quality of the sketch. Students then form into partnerships or small groups to share and discuss their sketches. Then other group members are welcome to make interpretations about the sketches. Upon completion of the activity, students may revise their sketches in response to the discussion that may lead to a deeper understanding. Incorporating art enables students to stretch their interpretations of text to a higher level (ReadWriteThink, n.d.).

A visually literate person must be able to successfully decode and interpret visual messages and encode and compose meaningful visual communications (Beatty, 2013). This is done when the student can understand meaning by looking at visual materials or come up with meaning by creating visual materials (Beatty, 2013). With the implementation of visual arts strategies, educators can help students gain comprehension and retention skills.

### **Impact of Art, Critical Literacy, and Social Practice**

Critical literacy theory proposes that opportunities to learn about social issues related to equity in society must be addressed (Millman, 2009). According to this theory, a meaningful curriculum that involves students relating to their own social and political situations will make school more relevant to them. According to Millman (2009), “in addition, critical literacy theory suggests learning about socially relevant issues through language arts skills in a way to make language arts more meaningful. In addition, learning must be achieved in ways that give students authority to make decisions and participate in ways that are not teacher dominated” (p.68). An insightful quote by educator and author George Bernard Shaw characterizes our role as educators: “I am not a teacher: only a fellow traveler of whom you asked the way. I pointed ahead – ahead of myself as well as of you” (Schulevitz, 2000).

Integrating art education into the curriculum offers alternative ways to reach students and make school more relevant to them. Student artists are in a position to provide language that



shapes perception. Words are a powerful way to shape the way in which people see their art. (Krohn-Amorose, 2013). Infusing the language arts curriculum with art is a critical step in fostering “critically literate students who know how language and other sign systems work and can use them to make meaning and reposition themselves in the world in a more democratically thoughtful and equitable manner” (Harste, 2014). By giving recognition to art as a social narrative, while using a critical literacy framework, teachers can help students develop an understanding of social and cultural meaning in art. This, in turn, gives students the tools to gain understanding of their culture and society and to work toward social practice. Teaching with the intent to infuse art with critical literacy gives students the opportunity to examine social issues through the narrative qualities of art by combining art with language arts skills, such as discussions and writing. Teachers willing to integrate art lessons within their curriculum can increase critical literacy in their students.

## **Chapter III: Findings, Recommendations and Conclusions**

### **Introduction**

What follows in this chapter is a summary of research findings, including limitations of the study and how it could improve, as well as suggestions for implementing art integration into school curriculum and suggestions for classroom teachers.

### **Summary of Findings**

The purpose of this paper was to determine the effects, if any, of art education and visual literacy on the increase of critical literacy in K-12 students. The research shows the inclusion of arts-based programs does show an increase in critical literacy. According to Kariainen (2013), “art education and visual literacy have demonstrated a positive influence on critical literacy in K-12 students, although, experimental evidence of transfer of this influence may be difficult to produce. However, there is evidence that, with the inclusion of art education and visual literacy, students strive harder to find solutions, ask creative questions, and work collaboratively; all components of critical literacy” (p.16).

Studies, Korn & Associates, 2007, show that with careful selection of texts and lessons based heavily in visual art, students demonstrated they had transferred critical thinking skills to interpreting, questioning, and analyzing texts across the curriculum.

### **Limitations**

Studies on art integration are available, however, there is room for further research. Most studies referenced here are in the short term; Mathieson, E.M., Sorensen, M., Tillman, A., and Tucker, S.. It would be ideal to learn about the long-term effects of an art integration model implemented in a school setting. Narrowing the focus may also be helpful, such as focusing research on specific grade levels or student groups. It would also be helpful to find studies that are more current, as most studies found were beyond the last 5 years. Many studies found used varied types of research methodology used, so additional formal and consistent studies may be

needed. Also, quantitative research is needed to measure more specific effects of art education on critical literacy in the area of K-12 education.

### **Creating Effective Art Integrated Programming**

Kariainen (2013) states, “although learning through art is complex and multi-dimensional, evidence shows that critical literacy and an art-infused program can co-exist and benefit students with deeper learning. Students can discover new and different layers of interpretation through arts-based learning while embracing independent thinking and social practice” (p.21). Including art in the learning process allows students to move beyond the recall and memorization stages of learning and encourages them to develop a deeper understanding of content through the meaningful completion of projects or activities. While arts integration creates a space for students to express themselves, it also increases student engagement, which is a critical component to success. Especially in subjects such as literacy and reading, student engagement is necessary to encourage interaction, which leads to higher achievement (Tucker, 2017). An effective arts-based program should ideally include art across the curriculum. The art of visual learning, critiquing, and questioning should go beyond the perceptions of what a typical art room is thought to encompass. In order to create an environment where students are engaged and passionate about learning, it is most important to incorporate visual images to engage student interest, critical thinking, and hands-on learning (Kariainen, 2013).

### **Teacher Recommendations**

Sorensen (2010) found that “art can benefit students when integrated across the curriculum by establishing connections between learning goals, providing chances for student success through open-ended work, opportunities for self-expression, and fostering critical thinking” (p.24). The increase of critical literacy through art integration helps teachers to be more creative, have better rapport with their students, and a higher interest in their work (Burton, et al., 1999). Even though these benefits exist, activating change in schools can be difficult. Schools need to commit to training and working with teachers to effectively integrate art into the classroom

curriculum. For administrators and educators to see the relevance of art infused curriculums, they must acknowledge the possibilities and value of arts integration in education.

A starting point would be for core content teachers to utilize the skills of art specialists at their schools and collaborate on an art-infused curriculum. Classroom teachers should communicate with art teachers, as they are skilled professionals and can advise on the best art instruction methods for students. If art integration is not done in a high-quality manner the program will suffer and not be successful. Integrating art across the curriculum can deepen students' critical thinking skills. For educators to embrace change, there must be collaboration with administration, as well as communication, involvement, facilitation, and support. Once educators embrace integration of art into their classrooms, they can create learning environments that serve the best interest of their students (Tucker, 2017). This can be as basic as readdressing how we accomplish routine classroom assignments and, in turn, including art. When students learn how to critically look at art through the creation of artwork, they can then transfer those critical thinking problem-solving skills to all areas of their education (Kariainen, 2013).

## **Conclusions**

Integration of art education and visual literacy does show a positive effect on promoting critical literacy in K-12 students. Infusing art education into the curriculum encourages critical and creative thinking, interdisciplinary connections, and the skills needed to become well-rounded 21<sup>st</sup>. century learners. In conclusion, we must recognize that art is an essential component in our schools.

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