Benefits of Arts Integration:

Rationale and Recommendations for Arts Integration in Academic Coursework

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Abstract

An education in the arts (dance, media arts, music, theater, and/or visual arts) provides students with quantifiable social, emotional, and academic benefits. Through arts integration, teachers of academic subjects such as Math, History, Science, and English can incorporate elements of the arts into their classrooms as strategies to teach their discipline content. This literature review synthesizes research on the social, emotional, and academic benefits of arts integration and provides recommendations for implementing arts integration practices in the classroom. As schools consider expanding learning options for students, and teachers seek out opportunities to incorporate social and emotional learning into their classrooms, arts integration practices provide a way to integrate these experiences into the classroom while also providing additional academic resources.

Benefits of Arts Integration: Rationale and Recommendations for Arts Integration in Academic Coursework

An education in the arts (defined as dance, media arts, music, theater, and/or visual arts) provides students with quantifiable social, emotional, and academic benefits. Through arts integration, teachers of academic subjects such as Math, History, Science, and English can incorporate elements of the arts into their classrooms as strategies to teach their discipline content. This literature review synthesizes research on the academic, social, and emotional benefits of arts integration and provides recommendations for implementing arts integration practices in the classroom. Increased education in the arts has repeatedly shown a significant positive impact on student engagement and achievement (Catterall, Chapleau, & Iwanga 1999; Ingram, 2003; Nelson, 2001). Arts integration is the use of these artistic disciplines to support and enhance curricular content in other subject areas. When the arts are used to support curricular lessons, it is possible to enhance a student's understanding of the curricular content as well as deepen abstract thinking skills (Catterall, 2002). As schools consider distance learning options for students and teachers seek out opportunities to incorporate social and emotional learning into their classrooms, arts integration practices provide a way to integrate these experiences into the classroom while also providing additional academic support. A growing body of evidence points to student gains in both social-emotional learning and academic performance. This review looks at literature from the past twenty years covering the benefits of arts integration in the classroom and looks at subject-specific case studies for examples of arts integration in practice.

By its very nature, arts integration is the combination of a minimum of two disciplines - the art media being integrated and the academic subject using the artistic tools for teaching

(Burnaford, 2007). The Merriam-Webster dictionary definition of "integrate" is "to form, coordinate, or blend into a functioning or unified whole" (Merriam-Webster, n.d.). This coordination into a unified whole is represented in the collaboration inherent in arts integration. Writing for the John F. Kennedy Center for the Performing Arts, Lynne B. Silverstein and Sean Layne recognize the growing interest in arts integration and offer this definition: "Arts Integration is an approach to teaching in which students construct and demonstrate understanding through an art form. Students engage in a creative process, which connects an art form and another subject area and meets evolving objectives in both" (Silverstein & Layne, 2010). When the arts are integrated, students learn in a variety of ways, allowing for multiple 'entry points' to subject matter content and strengthening engagement and connection to the classroom. The Arts-Based Collaborative at University of Tennessee proposed a different definition: "Arts Integration is instruction combining two or more content areas, wherein the arts constitute one or more of the integrated areas. The integration is based on shared or related concepts, and instruction in each content area has depth and integrity reflected by embedded assessments, standards, and objectives" (n.d.). Krug and Cohen-Evron use approaches to define arts integration including using the arts as a resource for other disciplines, using the arts to interpret ideas or themes in other subjects; and understanding life-centered issues through a combination of the arts and other subjects (2000). Throughout definitions, the common thread of arts integration is collaboration: between students, teachers, and disciplines.

While the studies referenced below use different definitions and have varying levels of arts integration, the positive effects of an education that includes the arts increase as students continually engage with the arts in any form. In a study on the involvement of the arts in human development, James Catterall, Richard Chapleau, and John Iwanaga presented an analysis of data

that found that even when adjusted for socioeconomic status there is consistent disparity in academic performance between students with a “high-arts” education, a “low-arts” education, and a “no-arts” education (1999). The high-arts students in each socioeconomic category scored higher than the low-arts students, who in turn scored higher than the no-art students. Results from studies focusing on both elementary and secondary education suggest that arts integration supports the development of student engagement, attention, and motivation - all skills which support the current school climate of preparing students for college and career readiness. Through arts integration, teachers of academic subjects such as Math, History, Science, and English can incorporate elements of the arts into their classrooms as strategies to teach their discipline content.

Benefits of Arts Integration

Academic Benefits

The report *Champions of Change*: *The Impact of Arts on Learning*, published by the Arts Education Partnership (AEP) and the President’s Committee on the Arts and the Humanities contained seven seminal studies on arts education and arts integration (Fiske, 1999). These studies measured academic gains in terms of scores on standardized achievement tests at both the local, state, and national levels; in a student or school average GPA; and through student engagement and dropout rates. Teachers, parents, and artists have anecdotally reported correlation between arts and academic achievement; now data backed up these claims (Scripp & Paradis, 2014). Research done since this report was released has continued to provide evidence for the link between arts education and academic gains.

Achievement Tests

Ingram and Riedel's 2003 study *Arts for Academic Achievement: What does arts integration do for students?* studied the relationship between arts integrated instruction and student achievement through a four-year longitudinal study focusing on reading and math. The Arts for Academic Achievement program was administered to students in K-12, with the achievement study specifically focused on grades three through five. This study found that in all grades reading scores were reliably higher for those in the arts integration program, and the greatest gains were made by low SES and ELL students. Scores were broken down by grade: e.g., in fourth grade, reading scores on standardized achievement tests increased by 1.32 points for each additional English/reading arts-integrated unit. Additionally, fifth grade students demonstrated statistically significant gains in their math achievement test scores, with each additional integrated math unit reflecting a .71-point increase in score. In a finding that holds true across studies, students who do not demonstrate achievement gains also do not demonstrate lower achievement scores, showing that there is no harm to implementing this type of arts integration program (Ingram & Riedel, 2003; Kiger Lee et. al., 2015; Krug & Cohen-Evron, 2000; Scripp & Paradis, 2014).

These benefits do not end in elementary school: a three-year longitudinal arts integration project through the Chicago Arts Partnerships in Education's (CAPE) Partnership in Arts Integration Research (PAIR) project in Chicago public high schools found that the amount the students participated in the arts integration program over the course of the three years was the clearest predictor of academic test results when "controlling for achievement, gender, family income, prior academic achievement, and ethnicity ratings (accounted for in the stepwise regression model)", and that the program had a statistically significant effect on student state test scores (Scipp & Paradis, 2014, p. 13).

Due to availability of national data, studies at the national level (rather than the school or district level) often reflect discipline specific arts education rather than arts integration. As Vaughn & Winner (2000) state, "[t]he relationship between arts courses and SAT scores has been documented by the College Board since 1987 and is based on a very large sample - all students taking the SAT who voluntarily responded to the Student Descriptive Questionnaire (SDQ) as part of the registration process" (p. 77). Their analysis of twelve years of College Board SAT data demonstrated a strong positive correlation between SAT scores and studies in the arts, but due to the correlational nature of the study could not draw specific conclusions and recommended further research studies examine alternate explanations.

GPA and Common Core State Standards

Arts integrated lessons have a beneficial effect on long term retention of content. Hardiman, Rinne, & Yarmolinskaya (2014) found that when students in their trial conditions were given two posttests, one immediately after instruction and one delayed eight weeks later, students who received arts integrated instruction had a significantly higher retention rate compared to those who did not. Retention, in this study, was measured as a percentage of the delayed posttest score as a proportion of the immediate posttest score. This study is significant because it demonstrates the potential for long term gains with arts integration.

Much of the research on GPA is targeted towards discipline art classes, where students participate in a fine arts curriculum in tandem with other academic subjects (Catterall et. al., 1999; Catterall, 2002; Respress & Lutfi, 2006; Vaughn &Winner, 2000). This research runs adjacent to that of arts integration and allows for a conclusion to be drawn between arts education and increased GPA. While further research is necessary to confirm that arts integration

too has a specific effect on individual GPA, and not just overall test scores, this finding lends support to the further integration of the arts into other disciplines.

Indeed, the Common Core State Standards (CCSS) include references to the arts that align explicitly well with arts integrated lessons. The high school standards for English Language Arts explicitly reference visual and performing arts:

> Analyze the representation of a subject or a key scene *in two different artistic mediums,* including what is emphasized or absent in each treatment (e.g., *Auden's "Musée des Beaux Arts"* and *Breughel's Landscape with the Fall of Icarus*). [... and] Analyze multiple interpretations of a story, *drama,* or poem (e.g., *recorded or live production of a play* or recorded novel or poetry), evaluating how each version interprets the source text. (*Include at least one play by Shakespeare and one play by an American dramatist*.)
>
> (CCSS. ELA-LITERACY. RL.9-10.7 and 11-12.7, emphasis added).

The inclusion of the arts in the CCSS implies that art education is to be included in the mainstream curriculum. Despite being nominally in two subjects, the CCSS are written in such a way as to be broadly applicable to other disciplines, including the arts. As stated in the publication *Integrating Arts Learning with the Common Core State Standards*, "There is an interdependent relationship between applying what is learned in the CCSS to learning in the arts and using strategies and content learned in the arts to teach the CCSS" (CCSESA Arts Initiative, 2014, p. 6). Through arts integration as well as discipline specific art courses, students gain the skills that move them toward subject standard mastery.

Social & Emotional Benefits

In addition to academic gains, students in arts integration or arts education programs have proven gains in problem-solving skills, collaborative practices, and social and emotional

development. McDonald & Fisher (2006) posit that these gains manifest in "better communication skills, friendships with others, and fewer instances of violence, racism, and other troubling and nonproductive behaviors". All students, including and oftentimes especially those who are marginalized, at-risk, children with disabilities or special needs, and other underserved populations, can benefit from arts integrated lessons (McDonald & Fisher, 2006). Researcher Dennie Palmer Wolf analyzed data from the Creating Original Opera project and determined that students engaged in more sustained and coherent collaboration when they were actively creating opera than when they engaged in unstructured play (Wolf, 2002). This work demonstrated that qualitative research can play a role in analyzing the 'soft skills' of the arts, turning them into quantifiable data that could be used for policy justification.

A four-year study of the North Carolina A+ arts integrated school reform program found that in addition to expected gains in student achievement (as measured through test scores, attendance, and discipline), the A+ Schools Program evaluators identified an effect of the arts integration program on students' social and emotional growth (Corbett et. al., 2001, as cited in Burnaford, 2007; Nelson, 2001). The DC Arts and Humanities Education Collaborative observed schools in Washington, DC that participated in a 2001 Arts in Education Initiative (AEI). These schools reported an environment where students felt they belonged, were valued, and could establish connections with trusted adults. This type of belonging and teacher trust is commonly accepted to increase students' engagement in the classroom, decrease behavioral issues, and allows students to reach out to teachers with problems or questions.

Additionally, it is possible to use the arts to explicitly teach emotional understanding. Students in high school drama courses learned strategies to use to understand and respond to emotions in characters that they were then able to transfer to their life outside the classroom

(Larson & Brown, 2007; Dorfman, 2008). This finding also held true at the elementary level, where Brouillette (2010) found that students who participated in arts integrated lessons resulted in positive social-emotional outcomes, including interpersonal interactions and the development of healthy social scripts. A large-scale United Kingdom study of the arts in secondary schools demonstrated students displayed increased knowledge of social and cultural issues, communication, and teamwork skills (Harland et al., 2000). Through work in the classroom, students developed abilities to understand, manage, and regulate emotions, demonstrating that these skills are able to be taught in a classroom setting.

Engagement and Retention

In addition to social, emotional, and academic outcomes, many studies measure student engagement and motivation. It is commonly accepted that students who are engaged in the classroom do better in school, leading to higher levels of satisfaction with their peers and their studies (Schrag, 2009, as cited in Richardson & Brouillette, 2013). Teachers often seek out ways to increase student engagement and reduce boredom. In a student survey following the Chicago Arts Partnership in Education (CAPE) encompassing 37 schools, 94 percent of elementary school children, 50 percent of middle school youngsters, and 86 percent of high school students reported that they enjoyed the arts-integrated lessons and thought that arts integration made learning fun (Catterall, 1999). The Learning Through the Arts (LTTA) program looked at engagement as the complex intersection of many components, including sensorimotor or physical, emotional, cognitive, and social dimensions (Smithrim & Upitis, 2005). Their survey analysis of the program revealed that all stakeholders viewed the LTTA program as increasing student engagement in learning as demonstrated through increased attention, excitement, and retention of information. Quantitative analysis of scale survey reporting also showed that by the

end of the three-year study, students participating in LTTA were happier and more engaged at school than their peers in control schools, a difference which did not exist at the beginning of the study.

A common metric of school success is graduation rate, and there is a significant correlation between arts inclusion in the educational experience and a lower high-school dropout rate. In one survey study, 41% of students who were seriously considering dropping out of school remained in school to graduation because of the arts education they were receiving (Barry, 1990). The Department of Education data also found the dropout rate for low-art students to be four times higher than that of high-art students (Catterall, 1999). A second study in 2015 followed approximately 175,000 ninth graders for five years and also found evidence that participation in the arts substantially diminished the risk of dropping out, and suggests that including the arts in required coursework is a possible strategy for reducing the dropout rate (Thomas et. al., 2015). Although these are correlational studies, the high prevalence of this pattern indicates a connection between dropout rates and arts education. According to Catterall et. al. the students who dropped out of school often reported boredom as one of the reasons why they stopped attending school and students who take classes including arts integration are self-reported as less bored in school. This direct link creates a stronger association in correlation. Across arts integration studies, classroom teachers consistently report positive, happy, and productive environments when students are engaged in creative ways of learning (McDonald & Fisher, 2006).

Arts Integration - Implementation

When used correctly, arts integration is an effective tool for teachers to engage and educate their students. If not used correctly, an arts integrated project can easily turn to busy work - but so too can a core academic worksheet, silent reading time, or a recorded lecture. Teachers who wish to integrate the arts in the classroom must name the skills they want their students to focus on and intentionally select a means of integration that addresses these skills. The first thing an educator should understand is what different arts disciplines can accomplish. This section of the literature review discusses implementation processes and examples for arts integration, including standards based arts education and the types of skills that arts integration can address, and reviews case study examples for specific academic disciplines.

Standards Based Education

As of 2020, forty-one states and DC have adopted the Common Core State Standards in their public school systems. These standards guide achievement tests and benchmarks across grades and subject and are a primary driver of standards based education in America. In 2014, the National Coalition for Core Arts Standards released a set of National Core Arts Standards (NCAS) to support arts education and student achievement in contemporary American public schools. Although the NCAS were developed and released separately from the CCSS, given that the CCSS are a formative educational policy driver of school reform initiatives across the nation, the NCCAS chose to intentionally ensure that the goals and objectives of the NCAS would clearly and meaningfully relate to the CCSS (College Board, 2012). The College Board's 2012 review *The Arts and the Common Core: A Review of Connections Between the Common Core State Standards and the National Core Arts Standards Conceptual Framework* provided a dual look at content-based alignment and skills-based alignment of the CCSS and the NCAS. Content-based alignment including recommendations for students to read plays, analyze and

interpret images and illustrations, compare representations of the same story in multiple media, and supplement texts with graphic components, while skills-based alignment showed that the NCAS four creative practices (now identified as Creating, Performing/Presenting/Producing, Responding, and Connecting) were evident in many of the same broad goals and thinking skills listed in the CCSS. It is these skills that educators seeking to integrate the arts will want to understand.

Through focusing on creating art, students will have to not just *generate and conceptualize* ideas, they will *organize, develop,* and *refine* them. Teachers who ask students to respond to art will have students *analyzing, interpreting, and applying criteria* to different works. Through connecting, students will *relate* artistic ideas and works with social, cultural, and historical contexts. Students asked to make final artistic presentations will use skills of *selecting, analyzing,* and *interpreting* as they *convey meaning* through artistic presentation (NCAS, 2014). By understanding the skills required to make art, teachers can intentionally select projects and techniques that enhance the learning experience.

Core Academic Subject - Integration Examples

In addition to large scale research and meta-analyses, action research studies provide looks into specific cases of arts integration with quantifiable data and results. Specific subject matter arts integrated studies of three subjects are covered here in order to provide detailed examples of a successful case of arts integration.

History - Music

Ronald Richardson and Liane Brouliette's 2013 study *Historic and Ethnic Music Found to Increase Geographic Understanding: A Quasi-Experimental Study* conducted an experiment

with eighth grade students to investigate the effect that implementing music history workshops had on student attitudes and understandings of geographic concepts. The researchers used National Geographic's Mapping the Beat, which curriculum focused on environment, identity, and movement through the links between music and geography. Each unit contains an introductory conversation about how concepts apply to students' lives, followed by recorded examples of musical forms from around the world. Music is discussed "as a record of cultural migration, a product of the geographic environment (what materials were available for instruments?), and a cornerstone of personal and group identity" (p. 6).

The majority of students in the study (85%) were randomly assigned to treatment groups; the remaining 15% were either special education students who received individualized instruction and could not change classroom or academically advanced students who were in alternative courses during the treatment program. Students in treatment groups received Mapping the Beat based instruction in nine units, each consisting of two 45-minute class periods. In both control and treatment classes, students studied maps of the world supplemented by text and music, but treatment courses emphasized "the migration of musical forms to the United States, as well as the impact of music, geography, and cultural influences on the nation's history" (p. 8). Samples of specific integrated lessons included:

> Workshop 2: American Work Songs. Students explored economic geography and how music was used to organize different kinds of work. They studied sea shanties sung on whaling boats, work-tempo songs associated with industrialization, spirituals attributed to slaves who toiled in the cotton fields of the South, and the rugged songs of railroad workers.

Workshop 6: Civil War Bands and Their Music. Students explored the musical culture of the United States prior to and during the Civil War, viewing the North/South conflict through patriotic songs and investigating the role that music played in Civil War propaganda.

Workshop 9: The Piano and the Industrial Revolution. Through learning about the Steinway family and the revolution they created in piano production, students examine the introduction of mass production and development of immigrant labor sources in cities.

The researchers focused on two measurement instruments as posttests in order to determine if there was a link between music integration and geographic understanding: The Standards-Based Geography Test, Intermediate Level, from the National Council for Geographic Education and the Test of Geography-Related Attitudes. The final analysis of covariance showed that students in the treatment group showed greater growth in geographic knowledge (effect size=.854) and more positive attitudes toward geography (effect size=.569) (pp. 12-13). Additionally, the sensory experience of listening to music "appeared to reinforce the conceptual understanding derived from the lecture and text, embedding the information more deeply in memory" (p. 14). All told, this method of integrating music into the history classroom successfully increased geographic understanding and student engagement in the lessons.

Science - Visual Art

Jatila van der Veen, a visiting researcher in the Department of Physics at University of California Santa Barbara, conducted an action research study using arts based learning as a means of facilitating the language of math and visualizing concepts in physics education (2012). In her instructional practice, van der Veen uses her first assignment to "introduce the idea that one can use drawing as a means of understanding in a physics class" (p. 371). Students read

Einstein's essay "Physics and Reality", draw a visualization of Einstein's description of science, and write an original explanation. Through this assignment, van der Veen "[sets] the tone for the study of symmetry as the mathematical and conceptual foundation of the study of physics [... and] establish[es] the validity of using drawing and visualization in understanding concepts in physics" (p. 373).

Although interpretive drawings are by nature subjective, van der Veen requires students to write out explanations of their art as well. She grades students not on the quality of their art, but against a rubric that establishes if specific concepts are represented. Through writing, visual, and in-class presentations of the artwork, a student is able to articulate the scientific concepts as presented in their artwork. van der Veen uses all of this data to assess the students as successfully understanding the article and completing the assignment.

Student self-reporting provided van der Veen with additional data demonstrating student engagement, attention, and critical thought (pp. 400-402). Students who entered the class with self-doubt left confident in their ability to comprehend and interpret the broader questions of physics in addition to specific assignments. This type of integration could occur in various science classes. As van der Veen states, "the power of the method lies not in replicating it exactly, but in taking the topics and arts-based learning strategies and tailoring the readings and assignments to the appropriate target audience, utilizing examples from the art and music of the local culture to illustrate principles of symmetry, space and time, and Relativity" (p. 403)

English - Drama

Linda Ranger conducted a study *Improving Reading Comprehension Through a Multi-Faceted Approach Utilizing Drama* using the hypothesis that "reading comprehension would not be improved in students who are taught through a multifaceted approach utilizing drama when

compared to the comprehension of a matched sample not exposed to drama." (1995, p. 10). To test this hypothesis, Ranger ran a quasi-experimental design on two classes of sixth grade students.

Both classes were presented with twenty vocabulary words from a one act play. In groups, the students defined the words and identified parts of speech. The control group received a study guide of the play along with a story map. Students were instructed to silently read the play and study guide, complete the story map, and then participate in a group discussion. The students were asked to complete a writing assignment "Extending the Plot". After reading aloud their alternative endings to the story, students were given a test focusing on vocabulary, parts of plot, and characterization. The experimental group was also presented with the same vocabulary words. However, after defining the word and identifying parts of speech, this class created skits using words from the vocabulary list. The students then read the play aloud, discussed motivations and characteristics of characters, and performed the play. After performing the play, the students participated in a group discussion. The students were then given the same post-test as the control group and the scores were analyzed.

Ranger found that her hypothesis was disproved and the experimental group scored significantly higher (7.6 points) on the final test. Additionally, fieldwork observations indicated that the experimental group was much more engaged in the lesson than the control group. Casual comments indicating comprehension of plot and character occurred during play rehearsal and performance. This study is notable not just for its result, but also because the control group read the same play that the experimental group read, but without the associated performance and engagement. While more research would be needed to confirm, this finding is indicative of the

necessity for intentional integration of the arts: simply using a play as a text does not suffice to get the benefits of arts integration.

Discussion

As seen in Ranger's 1995 study, it is possible to include elements of the arts in a class without embracing methods of arts integration. However, by intentionally integrating arts into academic lessons educators can support and enhance learning of core academic skills. By selecting and scaffolding integrated and interdisciplinary lessons, projects, and units, students will gain transferable skills. The arts broadly include dance, drama, music, visual arts, and media arts, and instructors should select an artistic discipline for integration based on the goals of the course. The specific examples above were designed lessons where instructors determined the skills and knowledge they wanted their students to leave the course with and selected art integration practices to help serve their purposes.

Dance integration provides benefits not just to students who need to move around but also to kinesthetic learners (Ozerem, 2015; Skoning, 2008). Students who learn through movement will be able to embrace concepts through pantomime, gestures, dance, and interpretive movement (Malacapy, 2019; Skoning, 2008). A science teacher who wishes to discuss the life cycle of a seed could have different students display "planting", "growing", "watering", and "blossoming" through movement. A history teacher could recreate a stylized battle, introducing students to the concept of overwhelming forces and a cavalry charge. This interpretive physicalizing provides a concrete method by which students can embody concepts and moments that would otherwise be impossible to recreate in a single class period (Hetland & Winner,

2000). Through dance, educators could focus on skills of expression, self-confidence, fluency, and social tolerance (Deasy, 2002).

Drama integration is a favorite arts integrational tool of English teachers. In addition to Readers' Theater texts written specifically for the purpose of classroom dramatization, educators can have students act out scenes from the text, create missing scenes, and consider the scenic, costume, and lighting design that would be needed to stage a text (McDonald & Fisher, 2006). Sherry DuPont's 1992 study on the effects of creative drama in the fifth-grade classroom found that, "…when children have been involved in the process of integrating creative drama with reading, they are not only able to better comprehend what they've read and acted out, but they are also better able to comprehend what they have read but to not acted out, such as the written scenarios they encounter on standardized tests". Drama enactment lends itself to both academic skills such as story comprehension, including character identification and motivation, and writing proficiency as well as social and emotional skills, including conflict resolution skills, increased understanding of social relationships, and the ability to understand complex issues and emotions (Deasy, 2002). The transferability of these skills, along with the natural connection of spoken word to written word, allows for an ease of integration. Students can dramatize concepts in nearly any subject area, writing scenes discussing and embodying topics or using text to create a play. In addition to work in the English class, Keiger Lee et al (2005) found that "many studies have found positive [drama integration] effects on academic achievement in science (Braund, 1999; Dorion, 2009; Francis, 2007; Kase-Polisini & Spector, 1994; Sloman & Thompson, 2010; Warner & Andersen, 2004), foreign language acquisition (Bournot-Trites, Belliveau, Spiliotopoulos, & Seror, 2007; Erdman, 1991; Shacker, Juliebô, & Parker, 1993), and math achievement (Fleming, Merrell, & Tymms, 2004; Kayhan, 2009; Walker, Tabone, & Weltsek,

2011)" (p. 7). An entire arts-integrated American history program has sprung up around the musical *Hamilton*, developed and run by the Gilder Lehrman Institute of American History and utilized by teachers across the country (D'Orio, 2017).

Music education includes multiple components: melody, lyrics, rhythm, and cultural context. Potential for music integration could include writing new lyrics to a song, discussing tone, analyzing rhythm, and creating sounds (McDonald & Fisher, 2006). A math instructor might choose to pair music notation with a lesson on fractions, discussing how a "quarter note" is literally ¼ of a "whole note" (Hetland & Winner, 2000). Taking this lesson a step further, a student could color in the fraction of a measure of music to demonstrate the parts of a whole. This method of *analysis and response* allows a student to aurally conceptualize that which is traditionally taught visually. On the other end of the spectrum, a language teacher wishing to investigate tone and implication could use changing musical melody and timbre to underscore a repeated phrase. The phrase, "I will always find you", underscored with the theme Alfred Hitchcock's *Psycho*, contains a drastically different tone than the same phrase underscored with the theme from James Cameron's *Titanic*. For students who are auditory learners, music integration can provide clarity to concepts (Şener & Çokçalışkan, 2018). Through music, educators can enhance skills of spatial and spatial temporal reasoning (Catterall, 2002).

Media arts, an artistic discipline educationally defined by the National Coalition for Core Arts Standards in 2014, is a new and constantly developing field. Technology to support media integration in the classroom is constantly evolving. Platforms such as EdPuzzle, Nearpod, GoogleClassroom, and Canvas all provide teachers with accessible ways to integrate digital multimedia into their classroom. Web and app based software such as FlipGrid and WeVideo allow teachers to put accessible video-making tools in the hands of their students. Research is

coming out demonstrating positive gains through the use of media arts (Stetter & Hughes, 2017), but much of this data is anecdotal and points towards increased student engagement and motivation.

There are numerous entry points for visual arts integration in the classroom. McDonald & Fisher (2006) provide a non-exhaustive list of 32 visual art activities that students can do (p.3). The simplest of these is to ask students to draw a concept, something that can be done at any age. An elementary school student might be asked to draw a scene from a book, while undergraduates could be assigned dense philosophical and asked to create an artistic representation (Silverstein & Layne, 2010; van der Veen, 2012). The degree to which the drawing is graded allows for instructors to guide students towards representation of concepts. A math instructor could link ground plans of rooms or maps of cities with a study of geometric shapes in order to provide a concrete example of areas. Visual art engages content organization, interpretation, and analytical skills (Deasy, 2002). The possibilities for visual arts integration are boundless.

Conclusion

Arts integration provides students with quantifiable academic, social, and emotional benefits that do not stop when the lesson ends. Students who participate in arts integrated lessons are more engaged in school, better satisfied with their lessons, less bored, and less likely to drop out of school than their peers who do not. Educators seeking to engage their students have plentiful data to support arts integration as a technique to increase student engagement in the classroom, and evidence indicates that while retention may only be boosted for subject matter being actively taught, positive emotional effects of arts integration linger throughout the day.

Prior to the COVID-19 pandemic, the place of social and emotional learning was primarily being discussed in school in terms of elementary students, with the conversation only beginning to encompass all grades. However, with the increase in social distancing and remote learning combined with the increase in reported levels of depression and anxiety among all ages, middle and high schools are also looking for ways to increase the amount of time they can devote to social and emotional education without reducing the academic instruction time. Arts integration provides that answer. Through embracing arts integration, schools can harness the academic benefits of the arts, including increased student engagement, to address subject matter content while also providing a social and emotional benefit to students.

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