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### Author

Robinson, A Helene

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Voices from Diverse Freshman Students: How Arts Integration Impacted Their Learning

A. Helene Robinson

University of South Florida Sarasota-Manatee

Author Note

A. Helene Robinson, School of Education, College of Liberal Arts & Social Sciences, University of South Florida Sarasota-Manatee.

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Correspondence concerning this article should be addressed to Dr. Helene Robinson, School of Education University of South Florida Sarasota-Manatee, 8350 N. Tamiami Trail, C263, Sarasota, FL 34243-2025. Email: [helene2@sar.usf.edu](mailto:helene2@sar.usf.edu)

## Abstract

In this mixed-method study the researcher sought to explore answers to the following research questions: 1) What is the effect of an arts integration approach on diverse freshman students' perceptions of learning, motivation/engagement, school attendance, and academic achievement? 2) Are there changes that occur in the quality of classroom instructional processes, including emotional support, classroom organization, and instructional support when an arts integration approach is being utilized?

As a quasi-experimental mixed-method study, the study utilized observations, focus groups, student questionnaires, field notes, and data obtained from the NYC IRB on student attendance, student demographics, and academic achievement data in a diverse high school in NYC public schools where 90% of the students were classified as non-white students. Among the 231 participating freshman students, 3% were part of the ELL program ( $n = 4$ ); 22% of the students had some disability ( $n = 41$ ); and the majority of the students were receiving a free or reduced lunch ( $n = 111$ , 61%). One of the 9th grade academies was selected as the control group and another as the treatment group. Teachers in the treatment group received a limited amount of professional development on arts integration using a small group project based implementation approach. Results indicate that the teachers in the treatment group increased levels of instructional support and differentiated learning formats in their classroom as compared to the teachers in the control group. Additionally, students in the treatment group outperformed the control group students in 3 out of the 4 subject area achievement outcomes that were compared. There was no significant difference found in student attendance between the control and treatment group students even though a snowstorm and a hurricane occurred during the semester this study was implemented. Data from the student questionnaires, the focus groups, field notes, and observations was triangulated and supported the quantitative data. The qualitative data provided a deeper understanding on how the experience had impacted student's self-beliefs and emotional engagement. Additionally, there was a significant increase in their behavioral engagement that was both observed and self-reported by students. This study makes a significant contribution to research identifying which aspects of instructional support seem to increase when teachers implement arts integration. Additionally, it extends other arts integration research examining diverse/disadvantaged student engagement and achievement even when adversity is experienced in a school

## Voices from Diverse Freshman Students: How Arts Integration Impacted Their Learning

### Introduction

High-quality arts integration involves a curricular connection process that collaboratively engages all participants to promote learning *through* and *with* the arts (Robinson, 2011). Marshall (2014) claims that the focus of art integration is on how knowledge is acquired, and how deeply it is understood by fostering conceptual/procedural skills and metacognition. According to Marshall, it is a transdisciplinary practice “. . .that rises above disciplines and dissolves their boundaries to create a new social and cognitive space” (2014, p.106). Not only is arts integration an excellent approach for planning and teaching the Common Core standards, but it also aligns with the Universal Design for Learning (UDL) guidelines that are being embraced by many school districts to successfully support diverse and struggling students to engage successfully in Common Core aligned tasks. The Center for Applied Special Technology (CAST) discusses UDL in terms of providing multiple means of representation, multiple means of engagement, and multiple means of action and expression (2009), which arts integrated learning contexts provide. Arts integration is engaging, as students have many opportunities for individual choice, autonomy, and self-regulation through collaborative learning experiences with peers. Teachers using the arts in their many forms (dance, drama, music, visual arts, literary arts, and media arts), offer alternative means for presenting information and options for student projects. Through arts-integrated learning, students are engaged in the artistic/creative process that offers a universal pathway to learning. Students 1) imagine, examine, and perceive; 2) explore, experiment, and develop craft; 3) create; 4) reflect, assess, and revise, and 5) share their products with others (ARTSEdge, 2012).

In addition to the consistent reports I have received from both pre-service and in-service teachers regarding substantial growth observed in children’s 21<sup>st</sup> century skills, Bellisario and Donovan (2012), also found that arts integration creates opportunities for students to develop 21<sup>st</sup> century learning skills (creativity/innovation, collaboration, communication, critical thinking/problem solving). Robinson (2011) also reviewed studies reporting gains in creativity, critical thinking, collaboration, and communication after learners were engaged in arts integration. When students are engaged in arts integrated learning experiences they begin to *work like an artist*. When they *work like an artist*, they must utilize all the 21<sup>st</sup> century skills. The artistic/creative process engages them in ongoing reflection of their art individually, with their peers, and with their teacher. They are motivated to critique their work and receive feedback from others. This feedback may come from other artists whom they may be co-creating with, or from the audience who views their art. Either way, this reflection and assessment further prompts their creativity as they perfect their art to communicate their purpose.

Eisner (2003) elaborated on the importance of the arts by claiming that the arts evoke specific forms of thinking that can transform education. These forms of thinking include the following: ability to compose qualitative relationships that satisfy some purpose; ability to shift aims while the work is in progress; to create a form whose content is right for some purpose; to express and recover meaning without literal language; to think within the medium one is using to create work; and to focus intensely due to the aesthetic satisfactions that the work itself provides. Additionally, Eisner (1998) claimed that there was a need for a conceptual framework to explain the connection between the cognitive skills developed in the arts and the functions these skills perform in academic work.

Greene (2000) expanded upon the Deweyan idea of democracy to build communities to empower the public, in many voices, to speak for itself. She asserted that the creation of

communities within the classroom is one of the most difficult and yet important tasks in schools of the future. Greene stated that the cultivation of the imagination is vital in the making of communities and that encounters with the arts are a primary way to activate the imagination. Greene further explains the need to explore ways to overcome the fury, feelings of pointlessness and despair, and violence often seen in public U.S. high schools by the “encouragement of imaginative reaching out that finds response in the community. . . for an opening of spaces for dialogue, for shared memories, for a coming together in the name of something to pursue” (p.273). With the salience of school shootings in the USA, there is a dire need to create communities within schools by engaging youth in the creative/artistic process. Arts integration in the classrooms should be explored as an important way where students can form communities through creating and sharing their art projects and performances and by examining and exploring other artists work. This mutual reciprocity facilitates both artist and audience to have their voices heard, to reflect and revise, and to imagine new possibilities. Understanding how arts integration can transform the learning contexts and create a sense of community may help to understand why it is showing the most significant effects on students who struggle for school success. In this study, a new conceptual framework is utilized to explore the indicators of art-integrated learning contexts that facilitate recognition within a community and increase student self-beliefs and resilience, resulting in student engagement and positive student outcomes.

## **Literature Review**

### **Empirical Review**

Research on the impact of arts integration/arts infusion depicts increases in affective outcomes and strengthened classroom communities as learning becomes meaningful to them and students collaborate together in classrooms where arts integration is occurring. Smith & McKnight (2009) found that drama integration increased urban elementary school students’ self-efficacy, collaboration, and strengthened classroom community. They conducted over 100 hours of observations between three elementary schools, conducted open-ended, semi-structured interviews with teachers from each school, and collected student artifacts. The classroom teachers participated in 9 hours of training on improvisation taught by drama teaching artists and implemented the activities over a semester. The teaching artists also served as participant observers in the classrooms teaching alongside the teachers as well as collecting data. After analyzing the data, they reported on the following themes impacting student outcomes. First, student engagement increased especially with students usually were not that engaged in work. Second, classroom community was strengthened as students who had been marginalized or who had special learning needs began to take on positive roles. They also reported that the increased engagement led to confidence in expression and extension of their authoring abilities in both spoken and written form.

Lorimer (2011) also reported on gains in affective outcomes. Self-efficacy, perseverance, attitudes toward school, and increased attendance were found to increase when students were engaged in arts integrated learning experiences. Lorimer (2011) conducted interviews and observations in five middle school classrooms in two schools with high populations of English language learners, students from economically disadvantaged families, and students from various racial/ethnic backgrounds. These sites were selected purposively to make explicit connections between arts infused learning and culturally responsive practices. A variety of arts infused learning and curriculum integration occurred across the five classrooms with visual arts infused far more often than dance and drama. Three observations occurred at each site and focused on

the learning environment, student-student, and student-teacher interactions. Observations revealed that culturally responsive pedagogy, active engagement, collaborative work environments, and personal connections were evident. Interview data revealed that the teachers and the administrator reported due to the increased engagement, they also noticed an improvement in behavior, attitudes, and attendance of diverse middle school students. The teachers also reported increased confidence, motivation, attention to detail, and persistence. Overall, data revealed themes of student self-empowerment and increased self-efficacy.

Some research has also reported gains in cognitive abilities. Rinne, Gregory, Yarmolinskaya, and Hardiman (2011) explains how arts integration improves long term retention of content by employing the following factors known to increase long term memory: rehearsal, elaboration, generation, enactment, oral production, effort after meaning, emotional arousal, and pictorial representation. In addition to other positive outcomes such as increased social self-esteem, Luftig, (2008) reported on increased creativity using the Torrence Test of Creative Thinking to assess fluency, flexibility, originality, resistance to closure, and elaboration. The study recruited 615 elementary students across three grades, four elementary schools, and two districts. Students receiving the arts integrated treatment (SPECTRA+) were engaged in a variety of activities. Students in the treatment group scored significantly higher on total scores of creativity than students in the modified control group or the full control group. More specifically, they found that the treatment group scored significantly higher than the other groups on originality sub-tests, and the 2<sup>nd</sup> and 5<sup>th</sup> grade students in the treatment group scored significantly higher on resistance to closure sub-tests than the other groups. On the sub-test of elaboration, the treatment group scored significantly higher than the full control group but not the modified control group. Burton, Horowitz, and Abeles (2000) also examined the impact of the amount and characteristics of arts learning, including arts integration that could lead to transfer of learning. One of the outcomes they also explored was the impact on creativity, using the Torrence Test of Creative Thinking, between children in the high arts or low arts groups. They also reported that overall, children in the high arts group scored significantly higher than children in the low arts group on scores of total creativity, with the most significant different seen in the elaboration scores when controlled for number of years of in school arts and also for number of years of art lessons that children in the high arts group and children in the low arts group were exposed to.

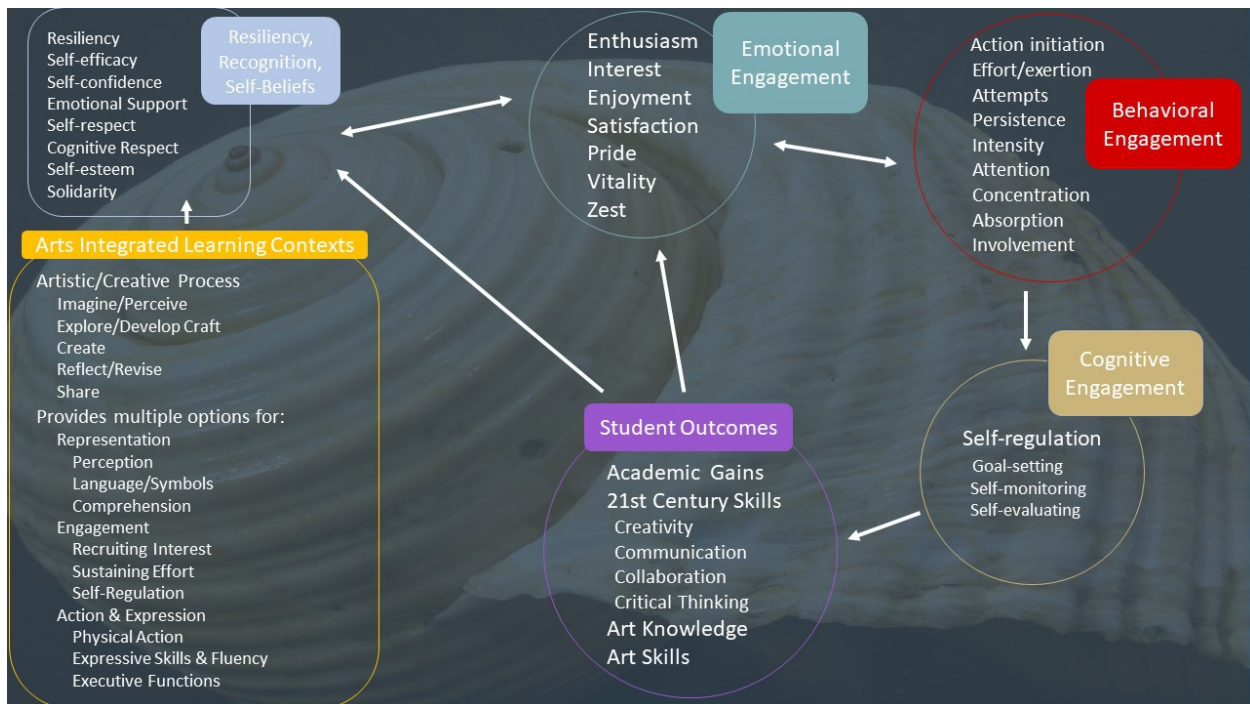
Additionally, social skills have also been reported to increase through arts integrated learning experiences. Brouillette (2009) conducted a study to examine the impact of arts integration on the emotional development and social interaction of children in grades 1-4. Although all four art forms were integrated, the teachers reported the most gains on students' social personal skills from drama integrated activities, followed by dance integrated activities. The teachers consistently reported that the drama and dance integrated activities helped children to better understand other people's responses, emotional expressions, and actions and facilitated a positive classroom culture.

When student motivation, perseverance, attitudes toward school, self-efficacy, self-esteem, cognition, and social skills increase, it is not surprising that other research has reported gains in academic achievement with students experience arts integrated learning. Rose (1999) performed a quasi-experimental study and found that students receiving beginning reading instruction with dance integration, using the body to make letter shapes, performed better on tests of decoding skills than students in the control group. This study was performed over 3 months and involved over 400 students across 12 Chicago schools with a high percentage of

economically disadvantaged, African-American students. Matthews (2001) employed a quasi-experimental approach and studied the effects of arts integrated curriculum on the reading performance in a predominately African- American, economically disadvantaged, elementary magnet school. He reported that the increases in reading achievement of the 5th grade students receiving arts integrated curriculum was higher and statistically significant compared to the 5th grade students in the control group. Podlozny (2000) conducted 7 meta-analysis from 80 selected studies on the effects of drama integration. She reported statistically significant relationships between drama integration and story recall (both oral and written), reading achievement on standardized tests, reading readiness, oral language development, and writing achievement. Luftig (2008) found that boys in the arts infused group had statistically significantly increases in math achievement as compared to those students in the modified control group or full control group. Ingrahm and Seashore (2003) performed a mixed method study examining the impact of arts integration in 45 public schools in Minneapolis. They reported a significant relationship for third graders in arts integration and math achievement and also reported that 5th graders in classes where arts was integrated with mathematics scored higher on math tests.

### Theoretical Framework

A new conceptual framework, the Arts Integration Engagement Model (AIEM), attempts to explain why academic achievement of diverse students seems to be impacted more significantly when they are engaged in arts integrated learning contexts (Robinson, in press). A brief summary of the framework is presented below. This theoretical framework borrows concepts from Honneth’s theory of recognition (Thomas, 2012), Skinner’s self-system model of motivational development (Skinner et al., 2008), and Bandura’s concept of self-efficacy.



**Figure 1: Arts Integration Engagement Model**

In arts integrated learning contexts, students are engaged through individual artistic expression and collaborative groups creating artistic projects that are relevant, authentic, and valuable in a context that minimizes threats and distractions. In learning contexts where multiple means of representation, engagement, and expression are provided for students, positive beliefs about self are developed as students engage in the artistic/creative process. Self-beliefs provide a specific mediated pathway between context and classroom engagement, as features of the arts integrated/art learning context influence how individuals feel about themselves. Thomas (2012) claims that children must have a sense of warmth and affection to engage fully; that they must be respected as rights-holders to participate equally; and that there must be mutual esteem, solidarity, and a sense of shared purpose to have a real impact. He further posited that in order for reciprocal recognition to occur, students must participate in both dialog and shared action together. As students engage in the collaborative artistic process of creating, performing/displaying, evaluating, and revising, they receive emotional support and recognition from their peer members to foster self-confidence and a sense of competence. Through this collaborative artistic process, where each group member has rights and choices and each has a relevant part in contributing to the group final art product or performance, they begin to develop self-respect and a sense of autonomy.

As students develop a sense of competence, autonomy, and relatedness, a change seems to occur in their emotional engagement/motivation. They often feel interest, vitality, zest, enthusiasm, enjoyment, satisfaction, pride, and a sense of purpose when engaged in the artistic process. This emotional engagement facilitates behavioral engagement. Students initiate action and become more involved and absorbed in their work demonstrating increased effort, attention, persistence, and intensity with their work. Research has shown that engagement can influence student learning, grades, achievement, and school retention (Skinner et. al, 2008).

### **Methodology**

In this mixed-method study, the researcher sought to address the following research questions:

- What is the effect of an arts integration approach on diverse freshman students' perceptions of learning, motivation/engagement, school attendance, and academic achievement?
- Are there changes that occur in the quality of classroom instructional processes, including emotional support, classroom organization, and instructional support when an arts integration approach is being utilized?

The particular high school was selected based on the desired demographics of its student population for the study. This high school was located in the New York City public school district. In this school, 59% of the students qualified for free lunch; 90% were identified as non-white students (65% identified as Black or Hispanic); 19% were identified as students receiving special education services; and 3% were identified as English language learners. The school emphasized projects rather than tests and was divided into three small learning communities of around 300-400 students per grade level. Most classes met three times a week on an alternating A/B schedule which allowed the class time to be longer for each subject. In addition, the school placed a strong emphasis on inclusion offering team teaching classes and special education resource room classes for pull out services, but no self-



contained special education classrooms. All of the students with disabilities spent most of the day with their non-disabled peers.

### Procedures

Two of the three small learning communities for ninth grade students were selected for this study with the help of the assistant principal. Random sampling was not possible however, groups were matched based on similar demographics. Table 1 presents frequencies and percentages for student demographics. One small learning community of ninth grade students was selected as the control group and the other was selected as the experimental group for a total of about 231 students and 12 teachers who participated in the study. Among the participating freshman students, 3% were part of the ELL program ( $n = 4$ ); 22% of the students had some disability ( $n = 41$ ); and the majority of the students were receiving a free or reduced lunch ( $n = 111, 61\%$ ). The experimental group consisted of 114 students and 6 teachers, while in the control group there were about 117 students and 6 teachers.

**Table 1: Frequencies and Percentages for Student Demographics**

Demographic		Freshman Students			
		Control		Experimental	
		<i>n</i>	%	<i>n</i>	%
ELL					
	No	68	97	84	98
	Yes	2	3	2	2
Disabled					
	No	65	77	79	79
	Yes	20	24	21	21
Free/reduced lunch					
	No	40	48	30	31
	Yes	44	52	67	69

Although the visual art teacher and the Spanish teacher taught students from both of the groups, they were assigned to either the control group or the experimental group based on the team with

which they usually planned. Control group teachers and students did not participate in any of the arts integration project activities over the months the study occurred. Teachers and students in both the treatment and control groups participated in data collection activities as described below. Approval for the collection of data was obtained from the researcher's university Institutional Review Board (IRB) as well as the NYC's DOE IRB prior to the study. Data collected and analyzed for this study included pre and post classroom observations conducted using the CLASS instrument; three focus group sessions with the experimental group teachers and one with the control group teachers who were audio recorded; researcher field notes; student surveys inquiring about their arts integrated learning experience; and district level data on student demographics, attendance, standardized achievement data, and course grades.

Teachers of the experimental group participated in three one-hour training sessions on arts integration that the researcher had conducted with them over a period of 3 weeks. During this training, they received information on the Universal Design for Learning (UDL) guidelines and an introduction to arts integration using the backward design process for curriculum planning to create differentiated small group arts integrated projects aligned to the specific content standards they were covering. The teachers were trained to create task sheets and rubrics to guide the student small groups as they were creating their projects. The teachers were encouraged to create small groups either based on different art forms or to create multi-arts projects so that there were multiple means of action and expression and engagement being offered to the students. During the implementation phase, the researcher met with the teachers weekly to help support their arts integration planning and teaching. The teachers implemented arts integrated projects over a period of five weeks after the training. The last weekly meeting during the implementation phase was audio recorded. Classroom observations were conducted prior to implementation and at the end of implementation by the researcher and a graduate assistant using the Classroom Assessment Scoring System (CLASS). Both observers were certified CLASS observers. The researcher conducted a pre and post observation on all 12 teachers except for the science teacher who did not want a post observation conducted. The graduate assistant conducted pre and post observations on 8 out of 12 of the teachers so that inter-rater reliability could be determined. Intra-class correlation coefficients (ICCs) for the two raters were conducted for each of the overall ratings (ES, CO, and IS). Results showed very strong reliability for ES (.98), CO (.99), and IS (.97) at pretest, as well as at posttest (.91, .78, and .79 for ES, CO, and IS respectively). Because there was good inter-rater reliability found, the two observations for each scale were averaged at each time period.

After implementation of the arts integrated projects in the science, social studies, English, math, and Spanish classes, the treatment group teachers administered a survey to the students. The Spanish teacher was selected by the participating teachers to administer the survey to the treatment group students. The survey included four open-ended questions that asked students what they had learned about the arts in the lessons; what they had learned about the subject area content in the lessons; how the arts experience helped them understand or connect to the subject area content; and what they had learned about themselves as artists and learners. Out of the 114 freshman students who participated in the experimental group of the study, 85 students completed the survey, which yielded a 75% participation rate with the treatment group students.

The researcher collected the student surveys during her final site visit when she conducted the evaluation focus group sessions with both the experimental and control group teachers. These focus group sessions were held on different days for the control group and treatment group teachers to accommodate the different academy schedules. Due to schedule

conflicts with the treatment group teachers, the researcher scheduled two different focus group times on the same day with two of the teachers attending one, and the other four teachers attending the other. One focus group was held with all six of the control group teachers. The researcher's purpose of the focus group session for the control group was to get the teacher's perspective regarding any events that had occurred during the semester that they felt may have impacted student learning. Additionally, both focus groups were prompted to share how they felt they were being prepared to teach the new Common Core standards, including planning curriculum using the backward design process, and implementation of the Universal Design for Learning guidelines. Additionally, the researcher queried the treatment group teachers regarding their implementation of the arts integration projects and perceptions on students learning.

### **Data Analysis**

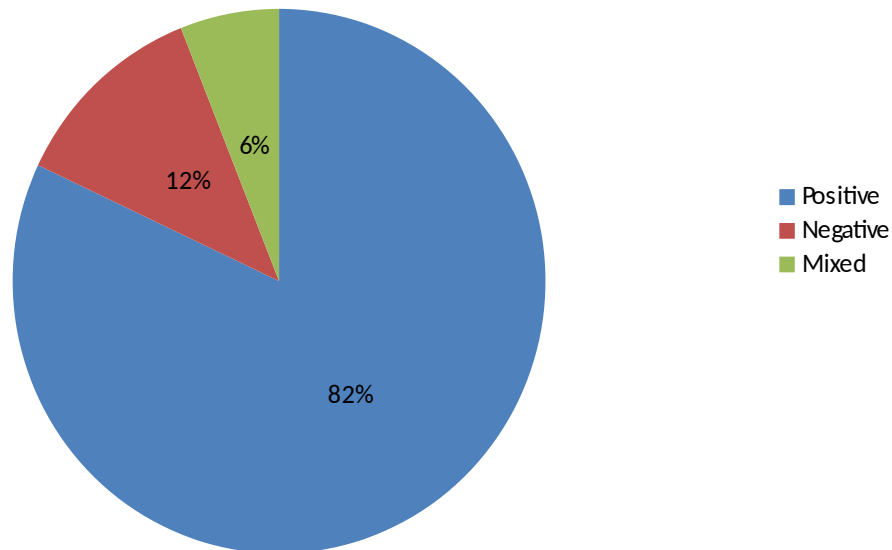
Student survey data was analyzed by using constant comparative analysis to chunk and label the data with descriptive codes, group codes by similarity, and then identify themes based on the grouping. In addition, classical content analysis was utilized to count the number of times the categories appeared in the data. Audio data transcribed from the last meeting during the implementation phase and from the focus group sessions, as well as the researcher's field notes, were analyzed using constant comparative analysis and classical content analysis. Additionally, quantitative data using the CLASS instrument from the pre and post teacher observations, and student attendance and academic achievement data were analyzed using SPSS and triangulated with the qualitative data. Data analysis involved the use of ANCOVAs and one-within-one among ANOVAs. ANCOVA was used to examine a continuous dependent variable by a grouping variable while controlling for one or more covariates. Finally, the one-within one-between ANOVA was conducted to test for differences in a continuous dependent variable by group when the variable is measured at multiple time points.

## **Results**

### **Student Survey Data**

The surveys were first sorted by whether students had an overall positive or negative learning experience. Only 18% of the students who replied had an overall negative impression of the arts integrated learning projects they had experienced in their different classes. A closer analysis of these student surveys revealed several emerging themes.

## Student Perception of Arts Integration Learning Experience



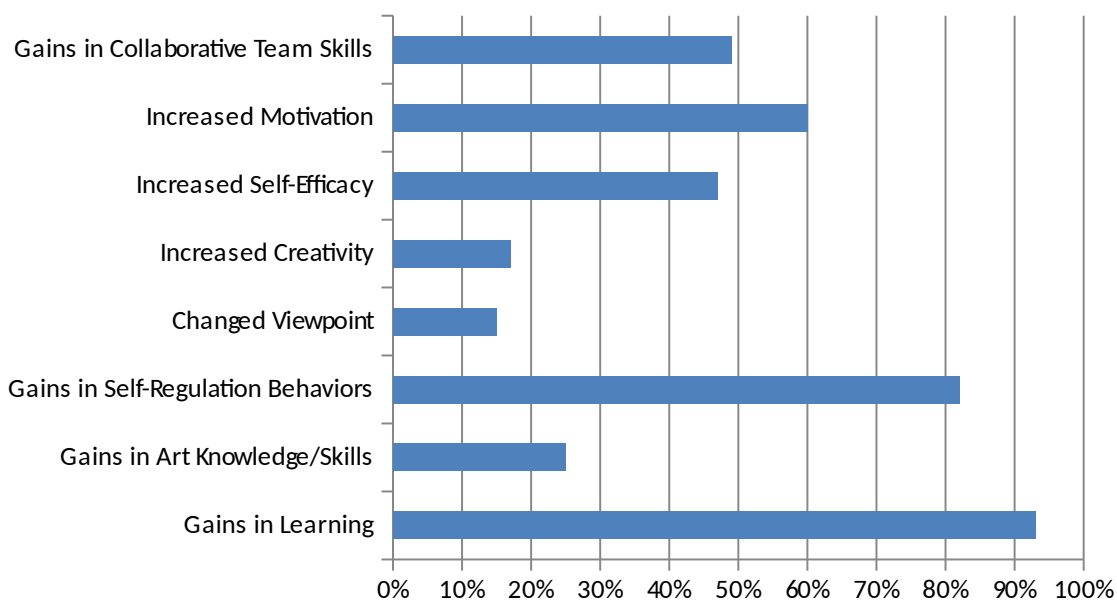
**Figure 2: Positive or Negative Student Perception of Arts-Integrated Learning**

Of the 15 students who replied negatively, two complained about having difficult group members, two felt that completing projects was not learning, one felt that they weren't good in math, and two students just stated that they didn't learn anything without giving a reason in any of their answers. Additionally, four students felt that doing anything with the arts was hard and that they were not artists, two replied that showing their academic knowledge through art was difficult, two felt that they were art experts and didn't need to learn more about art. Furthermore, 5 of these 15 students who gave overall negative answers also reported the following positive outcomes: one reported that he learned better when classmates taught him; one reported increased teamwork, time-management, and Internet searching skills; one reported increased video editing skills and learned that he was creative; one reported learning how to make a video; while another stated that the only thing integrating the arts did was that it "made things fun".

The remaining 82% of students who replied reported a positive impact from the arts integrated learning experiences. Their answers were chunked and coded, and then the codes were grouped by similarity. The following themes were identified: increased academic knowledge and skills; increased art knowledge and skills; increase in self-regulation behaviors (goal-setting, self-monitoring, self-evaluation use of learning strategies); increase in self-efficacy; improved creativity; increased motivation/effort/persistence; increased communication/social/teamwork skills; and impact on beliefs and values.

Classical content analysis of the above themes revealed the following percentages for each theme coded from the students who reported a positive or mixed experience. Based on the number of total comments coded for outcomes, the following figure depicts the percentage for each outcome.

## Student Survey Themes



**Figure 3: Student Survey Outcomes by Themes**

The outcomes discussed most often by students were related to gains in learning they experienced (93%). Some of these comments included the following:

- I learned that there are many ways to express your thoughts and your outrage inside. In math, I learned and grabbed the information better than sitting in a room with numbers.
- The arts experience helped me understand and connect to math because I understood polynomials. I learned that I have the ability to be creative.
- I learned that art, drama, dance, and music can an [sic] easy way to learn information. For example, in math creating a video caused me to not forget the steps of factoring. I learned that Spanish is easier when you break information down into little parts. I learned by the video that math is all about remembering. Also, in social studies I learned that writing a song about history is actually beneficial. Even the play [in] English brought out my teamwork skills. . . . I learned that I can be very creative when I put my all into something. Also, I learned that even a boring topic can become very interesting to me.
- It helped me become a better writer.
- I learn to work together and try to get along to get things done. In Spanish, I learned about the school. It helped me worked [sic] together with people I do not like or get along.
- I learned that it takes a huge amount [of] effort to do well in any subject. In English we performed small scenes about the book we were reading. This gave me a good idea of the characters in the book. In Spanish class we made a skit about a student in Spanish that didn't understand the "lesson". This helped me understand what he says in Spanish. In Math we did a really fun video project that reviewed the lesson very well. The arts experience helped me better review my math work. It helped me learn/understand the

books I read now. In Spanish I understand what my teacher says a lot better. As an artist I learned not to be nervous but as a learner I focus better in class.

- [I learned] to focus on the school activity [in Spanish class]. It was fun and easy. I had fun and I learn to be creative.
- [When the arts were integrated into course content, it] went more in depth into lessons. . . . I understand more.
- I learned how to speak Spanish to make a video.
- I learned that making a video in math can better help you understand an[d] listen in different ways.
- I learn how to describe yourself and school [in Spanish]. . . . I learned that you have to have patience.
- In the math video project, I learn how to do rules of exponents a little bit better, and try to be a little funner [sic], to make people laugh.

Additionally, 25% of the responses included comments about art knowledge or skills that they learned. Below are samples from the comments:

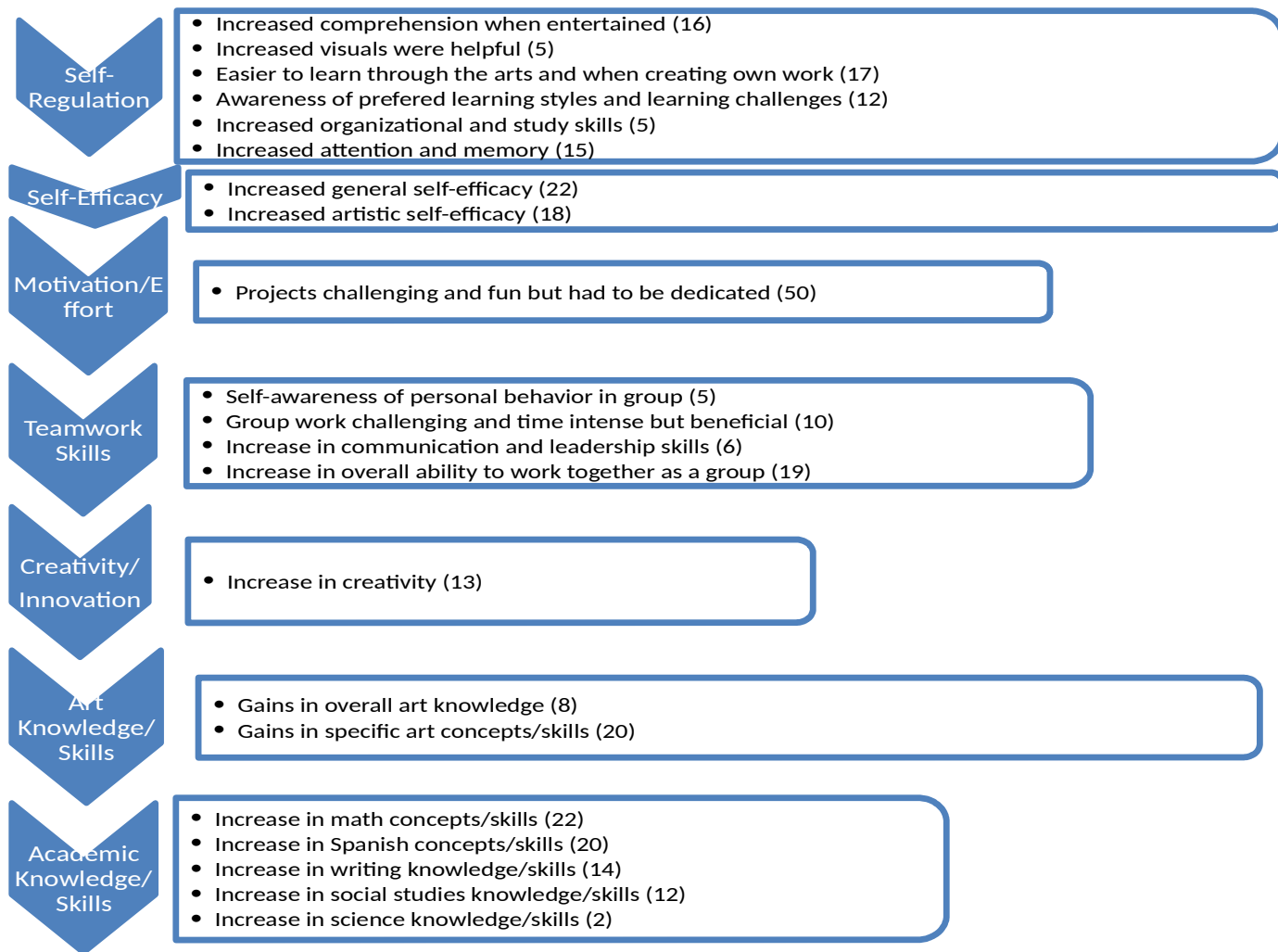
- I learned how to edit videos.
- I learned how to do some new rhymes for a song and I drew a lot also.
- I learned that red, blue, black, white and yellow are the primary color and how to create a secondary color.
- I learned about shading from dark to light.
- In the math visual project I learned about music and new ways to include it in the project. In Spanish I drew and that improved my art.

Finally, the comments below are indicative of comments coded for gains in self-regulation, creativity, general self-efficacy, artistic self-efficacy, motivation/effort/persistence, social skills, or a changed point of view:

- It is a fun way to learn and it teaches me to work with others as a team. . . . I learned more about the topic that I had to perform because I had to revise the subject so much that I remember it. . . . I am very creative and I am pretty good working with the arts. I learn better from constantly being exposed to a topic.
- I learned that drama is an area that requires hard work, dedication, and patience. Art requires precision, patience and of course dedication. I didn't learn anything about dance and music except that you can communicate a lot of topics through them. . . . I learned that I'm a good artist if I take my time. I learned that if I actually pay attention and try I am a good learner.
- Since it was fun using the arts to learn it was easier to learn about topics this way rather than a boring regular project. I learned how to work together with different people, and how to create something using my mind and making something original. As an artist I learned that I'm very bossy when it comes to making a video project or writing a script. As a learner I learned that I learn better when using the arts to learn about a topic.
- . . . that it takes a lot of patience and work to put an art performance on. I learned how to work with others and that I love the arts.
- I learned that if you are interested in it you can remember a lot and it takes a lot of work. It is not as easy as it seems because it takes time.

- It's catchy to learn through music and helps you express yourself. [I learned about] working together and performing. It made it easier. I am [a] good writer and fast learner.
- I learned that art can help a lot. It makes you want to learn more because you aren't looking at words and have to figure everything out but when you have arts involved you become way more interesting. . . . I learned that I can make little things bigger than they are. I learned that I can do anything I put my mind to.
- The arts helps you connect better because things like music are easier and more comfy to understand because you can interpret it in your own way. It kinda speaks your own language. I learned as an artist that I can be very creative. I learned about myself as a learner that I can understand better because I can interpret it in my own way.
- I've learned that there are many resourceful ways to learn different topics and lessons. I also learned that we have to be creative and organize in order to create an[d] fully and prepared work. . . . It is easier to comprehend the subject when we learn it in a way that entertain[s] us. I learned that I have talent to demonstrate lessons in artistic ways. I learned that I have options to learn in a fun way and that reading is not the only way to understand.
- I learned that there are other ways of learning in school. Projects can be enjoyable. We had to work in groups so it increased our group work skills. The arts made the projects more fun. We got to work with our friends so we enjoyed researching and putting it together.
- I learn[ed] . . . when you make a mistake you could make it better the second time. . . . I learned from artist that some of them make a mistake and they tell someone else before they make the same mistake.

In order to further distinguish how arts integrated learning impacted the freshman students' in different ways, classical content analysis was utilized to quantify the number of data chunks that were coded for each theme. Overall, there were 70 comments on increased self-regulation behaviors, 40 comments depicting gains in self-efficacy, 50 comments on increased motivation/effort/persistence, and 40 comments on increased teamwork skills. Additionally, students made 13 comments about gains in creativity, 28 comments on overall art knowledge/skills, and 70 comments about specific academic knowledge/skills. Analysis of the concepts/skills learned in the academic subject areas, showed that more students commented on math concepts/skills learned (22), followed by Spanish (20), writing (14), social science (12), and science (2). See figure 4 below.



**Figure 4: Classical Content Analysis of Codes for Themes from Student Surveys**

### Field Note Data from Observations and Focus Groups

Field notes from observations conducted in the classrooms and focus group sessions with the teachers were triangulated with the student survey data to further explain the results. The arts integrated activity in math was a small group creation of a math music video to explain specific algebra concepts and skills. Students were allowed to choose a variety of options in the creation of their music video as long as they were teaching one of the algebraic operations they were learning about. Several different clips of music videos of other teenagers teaching math concepts were shown to facilitate their imagination. Observations revealed that the students were very excited about this activity, and comments reflected enthusiasm subjects that were often challenging. Integrating arts in math seemed to increase student's motivation and self-efficacy to learn a difficult subject. During a focus group session, the math teacher also acknowledged increases in students' engagement and motivation and confirmed how she had built in choice for types of artistic project but aligned all of them to the same standards and rubric criteria. A shift in teaching pedagogy was observed from the pre to post observations. During the pre-observation, the teacher was demonstrating a math skill and then had students working



individually to solve math problems as compared to the small group work that was observed in the post observation.

Additionally, students in Spanish developed and acted out commercials in Spanish to explain about their school, or they created a brochure to advertise their school. The observations in the Spanish class revealed that many students were not interested and not on task in the class before the arts integration project was started. The fact that many students commented about specific concepts/skills they learned in the Spanish class is supported by the previous themes discussed about increases in self-regulation behaviors and increases in motivation, effort, and persistence. Data from the focus group sessions and observations revealed that the Spanish teacher usually had a more traditional approach to teaching using lecture, quizzes, and tests prior to participating in the study. Although, he liked implementing the arts integrated projects with his students, he felt that he needed more guidance in arts integration and in creating rubrics to assess their art projects. He also felt that students were overwhelmed with having five projects in each of their different content classes at the same time, since the projects were challenging and required the students to work in groups. Other teachers acknowledged that, although most of them did project based work with their students some of the time, the students were not used to having projects in all of their classes at the same time. However, the science teacher acknowledged that she had not implemented her arts integration project even by the end of the semester and that the students were asking her if they were going to be doing one in her class. Other teachers also acknowledged that students noticed the change and wanted to know why all the teachers in their academy were using arts projects in their classes and were told it was to see what would help them learn the best. The researcher was never able to conduct a post observation in the science teacher's classroom as the teacher continued to say that she had not started with the arts integration project. From her pre-observation, the researcher noted that the science teacher's pedagogy utilized more of a teacher directed approach, using lecture with questioning.

Students also commented on gains in writing from plays they developed and acted out in English class. It was obvious from observation that this teacher was respected and adored by her students. Her arts integration implementation integrated drama only and did not allow for student choice in the creation of another type of artistic performance or visual art product. During both focus group sessions the teacher shared that she had some behavior issues with some students while implementing the arts integration project. After further dialogue, she acknowledged that implementing multi-arts projects would differentiate for student art interests and/or abilities and provide choice, which could increase student engagement and decrease behavior issues. She acknowledged how she would feel if she was forced to do something in visual art instead of drama and noted that she was sure some of her students felt the same way. She also mentioned that from prior work with a drama teaching artist, she remembered the importance of using theater warm-up exercises to get students comfortable in acting in front of each other, which she did not use while implementing her drama integrated projects. She mentioned twice that the next time she would implement options for action and expression by allowing students to choose their artistic expression.

In the social science class, the students were given choices to decide as a group which art integration project they wanted to create. They could select a visual art, music, dance, or drama integrated project. The social studies teacher acknowledged that she was surprised how excited and engaged the students were to do the arts integrated projects. She also mentioned that it seemed to be a way to increase student motivation in subject areas that were usually very

challenging for them. She shared a conversation she had overheard a specific student, who was strong in writing but struggled with algebra, with a peer when they were discussing their algebra arts integrated project. The student who struggled with algebra replied to her peer that she thought the algebra arts integrated project was going to be fun while her peer complained that the project was going to be difficult. This teacher also acknowledged that by allowing students to choose the type of artistic project they felt empowered as they collaboratively decided on the type of project as a group and then individually selected roles that were of interest to them. As with the math and Spanish teachers, a noticeable shift in teaching pedagogy was observed from the pre to post observations. During the pre-observation, the teacher lectured and questioned students, compared to the small group work that was observed in the post observation.

Data from the focus group with the control group teachers and from the researcher's field notes provided additional information on other variables that may have influenced student achievement school wide and teacher perceptions of how to teach the new Common Core standards. Comments from the control group teachers indicated that there was a significant overcrowding issue occurring in the freshman grade that year, with some classes having up to 39 students. Although overcrowding had been an issue in the past, the teachers seemed to believe that this year was the worst they had seen it. The teachers additionally felt that the only solution that was provided for the overcrowded classrooms, providing a para-professional, was often not helpful. Several felt that it was just adding another body in an overcrowded room, and that, although some para-professionals were excellent, others did nothing and sometimes created behavior management issues that the teacher would have to handle. Furthermore, no one seemed to know who supervised and trained the para-professionals when I asked them if the special education teachers were the ones assigned to supervise the para-professionals. In comparison, one teacher acknowledged that at another school, where she had worked, there were very clear procedures for optimal use of para-professionals, in contrast to this school. Overcrowding and ineffective use of para-professionals seemed to be a factor that all the teachers felt was impacting students' learning.

Another variable that the teachers agreed had impacted student learning was the snowstorm and hurricane that had occurred during the semester of this study. Although the storms had made it difficult for both the teachers and students, most felt that it particularly impacted their struggling students. Both the control group teachers and the experimental group commented on how it made it difficult to catch up and get back into a normal routine.

When each group was queried on how much professional development (PD) they had received for teaching the new Common Core standards, backward design planning, and the UDL guidelines, both groups replied that although there was a very recent effort at providing PD on the Common Core standards, it was not connected to backwards design curriculum planning, and most teachers seemed to be problem solving on the implementation of these standards into their curriculum. Although several of the teachers mentioned a historical emphasis on backward design planning when the school had first opened, or had worked in another school where backwards design planning was emphasized, there was consensus that backward design planning was not currently emphasized at the school. However, some of the teachers felt that they were using it anyway to plan their curriculum. Finally, none of the teachers could identify the UDL guidelines, even though some knew that they were the recommended guidelines to utilize when teaching the Common Core standards so that struggling students could be successful.

### Academic Achievement and Student Attendance Data

Next, SPSS was utilized to run data analysis to compare academic achievement and attendance data between the control group and experimental group. The New York State Regents standardized exam for science and math, taken at the end of the freshman year, and course grades from English and Social Studies were selected as the academic outcome data. Course grades were utilized for English and Social Studies as there were only math and science standardized scores available to analyze. In addition, attendance data was compared to determine if any significant differences occurred between the groups. ANCOVA's (analysis of co-variance) were conducted to control for their eighth grade standardized scores/grades and to control for any variability related to student classification of disability, English language learner, or receiving a free/reduced lunch.

#### English course grades.

An ANCOVA was conducted to assess if there were differences in Ninth Grade English 2012 course grades by group (control vs. treatment) controlling for English 2011 raw scores, disability, ELL, and lunch status. Results of the ANCOVA showed a significant effect of group, suggesting that there were differences in English 2012 course grades by group. Those in the treatment group tended to have higher English 2012 course grades compared to those in the control group. Additionally, English 2011 scores and disability were related to English 2012 group scores. Table 2 presents the results of the ANCOVA for English scores.

**Table 2: ANCOVA for English 2012 Course Grades by Group Controlling for English 2011 Raw Scores, Disability, ELL, and Lunch**

Source	SS	Df	MS	F	p	Partial $\eta^2$
English 2011	4304.66	1	4304.66	42.08	.001	.22
Disability	523.75	1	523.75	5.12	.025	.03
ELL	27.03	1	27.03	0.26	.608	.00
Lunch	302.11	1	302.11	2.95	.088	.02
Group	733.65	1	733.65	7.17	.008	.05
Error	14937.14	146	102.31			

#### Social studies course grades.

An ANCOVA was conducted to assess if there were differences in Ninth Grade Social Studies course grades by group (control vs. treatment) controlling for 2011 social studies course grades, disability, ELL, and lunch status. Results of the ANCOVA showed a significant effect of group. Pairwise comparisons showed that the treatment group had significantly higher social studies course grades in 2012 compared to the control group. Table 3 presents the results of the ANCOVA for social studies scores.

**Table 3: ANCOVA for Social Studies 2012 Standardized Scores by Group Controlling for Social Studies 2011 Raw Scores, Disability, ELL, and Lunch**

Source	SS	df	MS	F	p	Partial $\eta^2$
Social Studies 2011	8455.73	1	8455.73	125.50	.001	.46
Disability	963.52	1	963.52	14.30	.001	.09
ELL	1.96	1	1.69	0.03	.865	.00
Lunch	117.69	1	117.69	1.75	.118	.02
Group	3517.64	1	3517.64	52.21	.001	.27
Error	9769.97	145	67.38			

**Math standardized scores.**

An ANCOVA was conducted to assess if there were differences in Ninth Grade Math 2012 standardized scores by group (control vs. treatment) controlling for Math 2011 raw scores, disability, ELL, and lunch status. Results of the ANCOVA showed a significant effect of group, suggesting that there were differences in Math 2012 standardized scores by group. Those in the treatment group tended to have higher Math 2012 standardized scores compared to those in the control group. Additionally, Math 2011 scores, disability, and ELL were related to Math 2012 group scores. Table 4 presents the results of the ANCOVA for math scores.

**Table 4: ANCOVA for Math 2012 Standardized Scores by Group Controlling for Math 2011 Raw Scores, Disability, ELL, and Lunch**

Source	SS	Df	MS	F	p	Partial $\eta^2$
Math 2011	7544.56	1	7544.56	89.76	.001	.39
Disability	862.77	1	862.77	10.26	.002	.07
ELL	452.85	1	452.85	5.39	.022	.04
Lunch	2.48	1	2.48	0.03	.864	.00
Group	578.06	1	578.06	6.88	.010	.05
Error	11852.12	141	84.06			

**Science standardized scores.**

An ANCOVA was conducted to assess if there were differences in Ninth Grade Science 2012 standardized scores by group (control vs. treatment) controlling for Science 2011 raw scores, disability, ELL, and lunch status. Results of the ANCOVA did not show a significant effect of group, suggesting that there were not differences in Science 2012 standardized scores by group. Additionally, only Science 2011 scores were related to Science 2012 scores. Table 5 presents the results of the ANCOVA for science scores.

**Table 5: ANCOVA for Science 2012 Standardized Scores by Group Controlling for Science 2011 Raw Scores, Disability, ELL, and Lunch**

Source	SS	df	MS	F	p	Partial $\eta^2$
Science 2011	12403.38	1	12403.38	109.37	.001	.49
Disability	25.37	1	25.37	0.22	.637	.00
ELL	19.26	1	19.26	0.17	.681	.00
Lunch	280.63	1	280.63	2.47	.118	.02
Group	154.81	1	154.81	1.37	.245	.01
Error	13155.51	116	113.41			

### **Absences.**

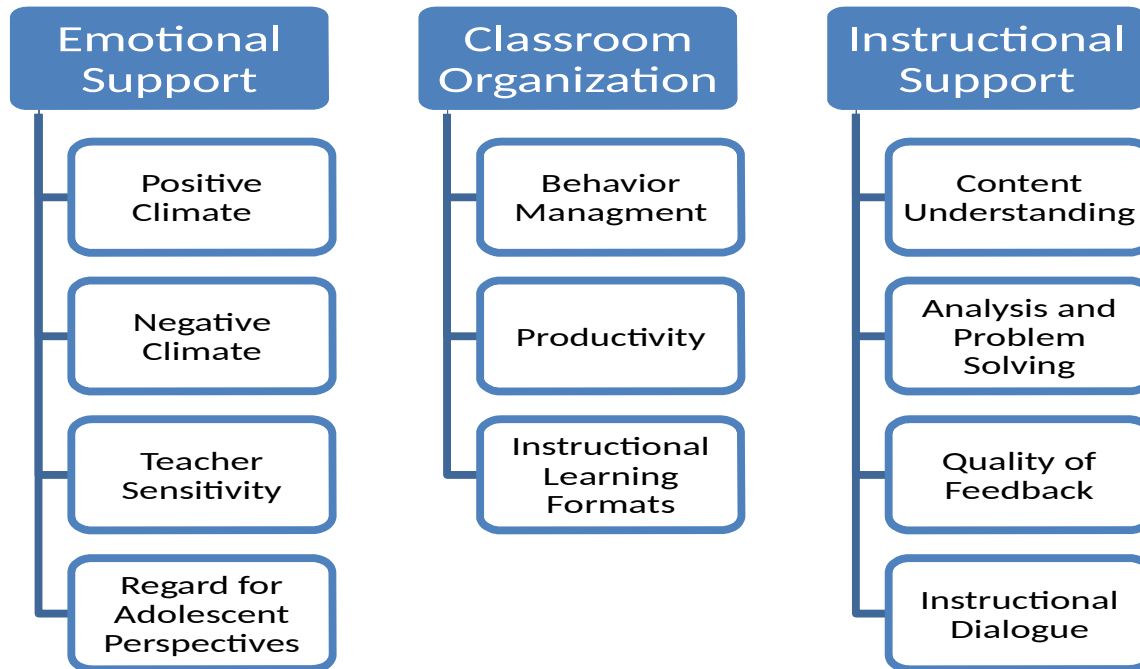
An ANCOVA was conducted to assess if there were differences in ninth grade absences by group (control vs. treatment) controlling for 2011 absences, disability, ELL, and lunch status. Results of the ANCOVA did not show a significant effect of group, suggesting that there were not differences in absences by group. Additionally, only 2011 absences were related to 2012 absences. Table 6 presents the results of the ANCOVA for Science scores.

**Table 6: ANCOVA for 2012 Absences by Group Controlling for 2011 Absences, Disability, ELL, and Lunch**

Source	SS	df	MS	F	p	Partial $\eta^2$
Absences 2011	283.88	1	283.88	5.63	.019	.04
Disability	42.86	1	42.86	0.85	.358	.01
ELL	38.37	1	38.37	0.76	.384	.01
Lunch	102.03	1	102.03	2.03	.157	.01
Group	8.42	1	8.42	0.17	.683	.00
Error	7407.88	147	50.39			

### **Classroom Instructional Processes**

In addition to field notes, student achievement data, and student attendance, classroom observations were conducted using the CLASS instrument. The Classroom Assessment Scoring System was developed to measure the nature and quality of effective teacher-child interactions. It is a valid and reliable tool that measures three broad domains of effective interactions: emotional support, classroom organization, and instructional support (Mikami et al., 2011; Hafan et al., 2012; Allen et al., 2013; Gregory et al., 2014; Hafen et al., 2014;). These domains are further divided into specific dimensions and depend on the age/grade level of the classrooms being observed. The CLASS instrument for middle school/high school observations includes the following dimensions by domain.



**Figure 5: CLASS Domains and Dimensions**

**Emotional support (ES) average scores.**

A one-within one-between ANOVA was conducted to assess if there were differences in ES Average scores by group and by time. Results of the analyses showed no significant difference by time, suggesting there were no differences in ES scores by time. There was also no significance by group, suggesting that there were no differences in ES scores by group. Additionally, there was no significant interaction between group and time. Results of the ANOVA are presented in Table 7.

**Table 7: ANOVA for Differences in ES Scores by Time and Group**

Source	SS	df	MS	F	P	Partial $\eta^2$
Time	0.18	1	0.18	0.15	.708	.01
Time*Group	2.08	1	2.08	1.67	.217	.11
Error	17.46	14	1.25			
Group	2.91	1	2.91	0.97	.341	.07
Error	41.82	14	2.99			

**Classroom organization (CO) average scores.**

A one-within one-between ANOVA was conducted to assess if there were differences in CO Average scores by group and by time. Results of the analyses showed no significant difference by time, suggesting there were no differences in CO scores by time. There was also no significance by group, suggesting that there were no differences in CO scores by group. Additionally, there was no significant interaction between group and time. Results of the ANOVA are presented in Table 8.

**Table 8: ANOVA for Differences in CO Scores by Time and Group**

Source	SS	df	MS	F	P	Partial $\eta^2$
Time	0.17	1	0.17	0.27	.615	.02
Time*Group	0.05	1	0.05	0.07	.795	.01
Error	8.97	14	0.64			
Group	0.01	1	0.01	0.00	.957	.00
Error	34.42	14	2.46			

**Instructional support (IS) average scores.**

A one-within one-between ANOVA was conducted to assess if there were differences in IS Average scores by group and by time. Results of the analyses showed no significant difference by time, suggesting there were no differences in IS scores by time. There was also no significance by group, suggesting that there were no differences in IS scores by group. However, there was a significant interaction between group and time,  $F(1, 14) = 6.17, p = .026$ , partial  $\eta^2 = .31$ . Pairwise comparisons showed that IS average scores significantly increased for the treatment group only. Results of the ANOVA are presented in Table 9.

**Table 9: ANOVA for Differences in IS Scores by Time and Group**

Source	SS	df	MS	F	P	Partial $\eta^2$
Time	1.28	1	1.28	1.47	.245	.10
Time*Group	5.37	1	5.37	6.17	.026	.31
Error	12.18	14	0.87			
Group	0.1	1	0.15	0.07	.799	.01
Error	31.11	14	2.22			

Additional ANCOVAs were conducted to assess for differences in the individual dimensions by group, time, and the interaction of group and time. Results showed significant differences in Instructional Learning Formats (ILF), Content Understanding (CU), Quality of Feedback (QF), and Instructional Dialogue (ID) scores by the interaction of group and time ( $p < .050$  for each). For ILF, posttest scores were significantly higher at posttest than at pretest for the treatment group, while for the control group, ILF posttest scores were significantly lower than pretest. A similar pattern occurred for CU scores, QF scores, and ID scores, where the posttest score tended to be higher for the treatment group, but lower for the control group, when compared to the pretest score. Table 10 presents the full ANCOVA results for the individual CLASS dimensions by group and time.

**Table 10: ANCOVA for Differences in CLASS Dimensions by Time and Group**

Dependent	Time		Group		Time*Group	
	F	Partial $\eta^2$	F	Partial $\eta^2$	F	Partial $\eta^2$
PC	0.46	.03	0.61	.04	0.46	.03
NC	0.00	.00	0.09	.01	0.09	.01
TS	0.34	.02	0.03	.00	2.09	.13
RSP	0.02	.00	3.10	.18	1.81	.12
BM	1.58	.10	0.02	.00	0.36	.03
P	0.00	.00	0.00	.00	0.11	.01
ILF	0.00	.00	0.01	.00	5.66*	.29
CU	1.97	.12	0.26	.02	5.83*	.29
APS	3.59	.20	0.78	.05	0.26	.02
QF	0.14	.01	0.43	.03	5.58*	0.29
ID	1.09	.07	1.21	.08	7.53*	.35
SE	0.13	.01	0.22	.02	2.25	.14

### **Discussion**

In an era where students, teachers, schools, districts, states, and countries are constantly compared and ranked, a culture of blame and shame has become all too common, especially in schools with high populations of diverse learners. Comparison kills creativity and joy (Brown, 2010), and yet it occurs in both the arts and academics. According to Brown (2012), learning is dehumanized when people only see what students produce or how they perform, and causes students to disengage. In sharing results from her own research, Brown (2012) reported that 85% of the men and women interviewed identified a school incident from their childhood that was so shaming, it changed the way they thought of themselves as learners. She further reported that in half of the childhood school incidents, the participants were told or shown that they weren't good writers, artists, musicians, dancers, or something creative. To cultivate creativity, one must let go of comparison and choose to be curious, vulnerable, and open to uncertainty (Brown, 2015). Arts integrated learning contexts cultivate environments where the emphasis is on the process, and not the perfection of the product. It is a learning environment where all children experience sharing their art and feeling vulnerable while they explain how/why they used specific art elements/skills to communicate their academic concepts/skills, and where they also experience being audience members who are curious to understand the artist's choices to communicate his/her intended meaning. Arts-integrated learning contexts can create the communities that Green (2000) postulated is urgently needed in our schools. A place where there is an "... encouragement of imaginative reaching out that finds response in the community. . . for an opening of spaces for dialogue, for shared memories, for a coming together in the name of something to pursue" (p.273).

Data from this study was interpreted through the lens of the previously mentioned Arts Integration Engagement Model (AIEM) to explore variables in the arts integrated learning environment impacting students. Results from this study indicate that when students are engaged in small group, arts integrated projects, they obtain higher course grades and scores on standardized academic achievement tests even when encountering obstacles that would normally limit student learning and achievement, such as days missed due to acts of nature and class



overcrowding. Since there was no significant difference in student attendance between the control and treatment groups, and since both groups were experiencing oversized classes, these variables could not explain the differences found in the academic achievement outcomes in Math, English, and Social Studies between the groups. Although no significant difference was found between the groups' scores on the NY Regents Science exam, this is not surprising since the science teacher in the experimental group acknowledged not implementing an arts integration approach.

Further analysis of the data was conducted to understand the relationship between the classroom interactional processes (context), students' self-beliefs, emotional engagement, behavioral engagement, and increased academic achievement. Results from the CLASS observations indicate that the teachers in the experimental group had significant increases in the instructional support domain, compared to the teachers in the control group. Data analysis at the dimension level revealed that treatment group teachers had significant gains in instructional learning formats, content understanding, quality of feedback, and instructional dialogue compared to the control group teachers. Prior research conducted with CLASS has shown relationships between CLASS scores and student achievement. Furthermore, while the treatment group teachers experienced gains in the above dimensions measuring classroom interactional processes, the control group teachers experienced a decrease in the same dimensions over time of the study. This decrease seems to be supported by comments from the control group teachers during their focus group session as they discussed how the hurricane, the snowstorm, and the class overcrowding was having an impact on student learning and on teacher motivation. However, although experiencing the same issues, the treatment group teachers demonstrated growth in all dimensions of the instructional support domain and in the instructional learning format dimension under the classroom organizational domain. This is a very important finding and supports the previously mentioned research that suggests that an arts integration approach increases student motivation.

Furthermore, in debriefing sessions after the observations, the researcher and her graduate assistant commented on the dramatic improvement in the amount of peer interactions/dialog that were facilitated by the students enthusiastically planning their arts integrated projects in the treatment group classrooms, compared to the control group classrooms where the only classroom observed to be doing any type of project work was in the social science teacher's class. This control group teacher was having the students work together to create an advertisement for a specific country. Other than this observation in the control group classrooms, none of the other teachers were observed to be implementing any type of small group student projects during the two observations. On the contrary, some of the teachers in the treatment group felt some of the treatment group students might be feeling overwhelmed about having projects in all their classes at the same time and involving a great deal of time. Many of the treatment teachers mentioned how the students would collaborate outside the classroom to work on the project together, in addition to the time they were allowed to work on it in class. Data indicate that there was a distinct difference occurring in the instructional support and instructional delivery format between the majority of the treatment and control group classrooms.

Other research using CLASS in secondary classrooms, demonstrated that when students were provided a positive emotional climate, given opportunities to meet their needs for autonomy and control by having an active role in their learning and peer interactions, and given the experience of engaging/diverse instructional learning formats with an emphasis on analyzing

and problem solving, they performed better on standardized achievement tests (Allen et al., 2013). In another study using CLASS in secondary classrooms, researchers found that the positive relationship between classroom emotional climate and academic achievement was mediated by engagement after controlling for teacher characteristics and the observed classroom organizational and instructional support domains (Reyes, 2012). Finally, Hafen et al. (2011) found that when diverse high school students perceived their teachers to be encouraging their autonomy within the first few weeks of the course, they demonstrated increased engagement throughout the course. Hafen et al. (2011) collected data through a pre/post questionnaire and through observations using the CLASS.

The current study supports the findings in prior research in secondary classrooms using CLASS. Specifically, classrooms where students were experiencing diverse instructional learning formats, were offered many opportunities for peer interactions and provided high levels of quality feedback and instruction that created opportunities for deep content understanding, had more engaged and had higher gains in academic achievement. Additionally, this study provides an explanation as to how arts integration impacts the classroom interactional processes, especially those related to instructional support and differentiated learning opportunities.

Students' answers on the survey supported the findings from the CLASS observations. To better understand why arts integration seemed to impact the freshman students so significantly, even during a time where there were many challenges to detract from student learning, the students' voices were emphasized in this study. As reported under the "Results" section, most of the treatment group students experienced a positive learning experience (88%), and only 6% of those who experienced a positive learning experience also mentioned something they did not like about the experience. Perhaps most telling, is the fact that the most common comments were related to gains in academic learning (93%), followed by gains in self-regulation behaviors (82%), motivation to learn (60%), collaborative team work skills (49%), and self-efficacy beliefs (47%). Comments related to these themes occurred more often than comments made about increased art knowledge and skills (25%), increased creativity (17%), and a change in viewpoint (15%). These findings support the research by Hafen and others (2011), that when diverse secondary students felt that their teachers were encouraging their autonomy during the first few weeks of a course, they demonstrated increased engagement throughout the course. It was clear through the students' comments and observations that they were feeling an increased sense of autonomy and were highly engaged. Furthermore, the fact that the students queried the teachers on why they were all using arts in their classes, even after being told by the researcher that the purpose of the study was to understand how best students learn, reveals that the students wanted to know their teachers' motives for changing their instructional methods. Realizing that their teachers were attempting to implement a different instructional learning format that allowed them to be active in small group arts integrated projects, have peer interaction and a sense of autonomy in their artistic projects, engaged them emotionally and resulted in increased behavioral engagement. Data from the observations, the student surveys, and the focus groups confirm that students were more engaged and motivated doing the arts integrated projects even though they were challenged and not under ideal learning conditions resulting from large class sizes, missed school days, and stress from the effects of the snowstorm and hurricane that had occurred during the semester of implementation.

Despite limitations, including small sample size and teacher's limited availability for professional development, this study provides evidence that an arts integration approach to learning with diverse students is related to positive changes in classroom interactional processes

and increased academic outcomes, even in schools that may be facing adverse conditions (snowstorms, hurricanes, overcrowding, etc.). This study provides initial evidence, to be further explored, suggesting that an arts integration approach has a powerful impact on the learning context. This change in the learning process seems to increase students' self-efficacy that engages their emotions, motivating them to persevere on their work, collaborate with others, and achieve academically.

### **Recommendations for Future Studies**

This study presents an opportunity for expansion. Further studies could add quantitative along with qualitative data, to measure changes in student's self-beliefs and engagement. Additionally, future studies should compare an arts integrated, small group project approach to other types of project based learning. Another direction for future studies could be to document the artistic/creative process phases that students engage in during arts integrated small group projects and explore relationships among gains in 21<sup>st</sup> century skills, while controlling for fidelity of implementation. Especially using a mixed method study with a sample size large enough to use an HLM design, future studies may be able to more accurately distinguish differences in arts integrated and non-arts integrated classroom interactional processes that may impact self-beliefs facilitating emotional engagement and behavioral engagement. An arts integration approach appears to increase student's interest, enthusiasm, enjoyment, and satisfaction and empower them to learn challenging subjects even in adverse conditions. Future studies should explore these relationships proposed in the new Arts Integration Engagement Model (AIEM) so that there is a clearer understanding of factors that contribute to increased student outcomes for diverse students.

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