

**Happy and Vibrant:
Noncognitive Factors in Elementary School Arts Integration**

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Abstract

Pomaika'i Elementary School is an exception to the systematic decline of the arts in schools across the nation, and has answered a call to invest in developing tomorrow's innovators by providing content instruction through the arts. How does school-wide arts integration in an elementary setting impact student success as they transition to middle school? This study defines the role of the arts in education within three ~~categories~~ noncognitive categories: a) academic mindset, or the psychological and socially related attitudes a student holds with respect to academic goals; b) learning strategies, or strategies that support thinking, remembering, or understanding concepts; c) and social skills or inter-personal behaviors such as interacting with others in socially acceptable ways through cooperation, assertion and empathy.

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Introduction

In 2001, Hawai‘i enacted Act 306, also known as the ARTS FIRST legislation, naming the arts as core academic subjects and setting the goal to guarantee comprehensive arts education for every elementary student in the state. Today, a handful of public elementary schools employ part-time music or visual arts resource teachers, but rarely dance or drama teachers. Other schools tap the resources of their communities and families to raise funds to employ arts specialists or teaching artists each year. Hawai‘i State Foundation on Culture and the Arts (SFCA) annually awards grants to about 45 schools to fund a professional teaching artist’s ten-day residency for a handful of classes. Hawai‘i’s Department of Education (DOE) encourages general elementary teachers to pursue opportunities to learn and practice arts integration by using the ARTS FIRST Toolkit and by awarding them credits toward pay scale advancement through courses hosted by notable organizations such as Honolulu Theatre for Youth (HTY) and Maui Arts & Culture Center (MACC) throughout the school year. In addition, during the summers, the Hawai‘i Arts Alliance (HAA) and MACC each host a four-day institute to arm teachers with arts integration knowledge, skills and resources. Over the course of a year, these professional development initiatives reach between 100 to 150 teachers out of the thousands in the system. While essential for the survival of the arts in Hawai‘i’s public elementary schools, these important efforts and initiatives cannot provide a comprehensive, enduring curriculum in the arts with continuity of instruction throughout a child’s elementary years.

This situation is not unique to Hawai‘i. The arts struggle for curricular existence in schools throughout the United States; “more than any other country (China for

example), art education in the United States has been considered an unimportant part of the child's scholastic portfolio" (Gardner, 1990, p. 36). The arts are simply regarded as unessential for schooling, the opposite of work and intellect (Gardner, 1990; O'Neill, 1983; Taylor, 2000). The United States Department of Education includes the arts in their legal definition of core academic subjects, and commits to "support systemic education reform by strengthening arts education as an integral part of elementary school and secondary school" ("No Child Left Behind (NCLB) Act of 2001," 2002, p. 80), but has also created a system of accountability with testing a dominant feature of the school day. Charged by the National Association of State Boards of Education, the Study Group on Lost Curriculum inspected the status of curriculum throughout the nation in 2003, and discovered the arts are increasingly at risk (Meyer, 2005). As schools continue to rely on testing in  Reading and Mathematics as indicators of success, the arts creep further and further to the perimeter of a child's life, or become less and less meaningful within the curriculum (Mishook & Kornhaber, 2006). In addition, the recent economic downturn has prompted schools to slash budgets and cut corners, eliminating anything that might be perceived as a "frill," and further marginalizing arts within school curriculum ("Re-investing in arts education; Winning America's future through creative schools," 2011).

Along with this decline are evolving fears that America's education system is failing to produce creative, innovative thinkers (Wagner, 2012). As we struggle to close global achievement gaps indicated by test scores of basic skills, we are losing the characteristics of our system that have yielded productive, divergent entrepreneurs who have struggled with our world's most pressing problems. Some believe there is a tremendous social and educational cost for neglecting the arts (Caldwell & Vaughan,

2012). The President's Committee on Arts and the Humanities suggest, "A greater investment in the arts is an effective way to equip students with the skills they will need to succeed in the jobs of tomorrow" ("Re-investing in arts education; Winning America's future through creative schools," 2011, p. 29)  recommends building robust collaborations among varying approaches to arts education, developing the field of arts integration, expanding in-school opportunities for teaching artists, utilizing policy to reinforce the arts in K-12 education, and broadening and investing in research on arts education.

Pomaika'i Elementary School is a unique exception to the systematic decline of the arts in elementary schools across the state and nation, and has been answering this call to double efforts in creating innovative thinkers. Located in Kahului, Maui, Pomaika'i Elementary School opened its doors in 2007 with a commitment to arts integration at the onset. In its vision statement, the school defines learning as a journey in which all members play a critical role in helping children become creative, critical thinkers who are competent, ethical, and confident life-long learners. The school explicitly states a belief in the power of the arts to support the development of the whole child, engage a variety of intelligences, learning styles, and backgrounds and provide students with opportunities to construct new understandings across the curriculum.

In the spring of 2012, Pomaika'i's first graduating class entered middle school. The research question of this inquiry evolved from the growing curiosity of Pomaika'i's teachers, administrators, parents, and funders who have invested in providing these children with an education model significantly different from other schools in their district, state, and nation. They want to know: How does school-wide arts integration in

elementary school impact students' academic achievement and social well-being as they transition to middle school?

Background

Advocates for arts in education date back as early as Benjamin Franklin (Purnell, 2004) and Horace Mann (Gullatt, 2008) and have been a subject of concern for great American thinkers such as John Dewey (1934), Maxine Greene (1995) and Elliot Eisner (2002). These philosophers contend the arts are central to education and central to humanity. Researchers have poured energies into generating a passionate body of evidence to supports the power of the arts in education. *Champions of Change: The Impact of the Arts on Learning* (Fiske, 1999) compiles the results of seven major studies conducted across the country, identifying how involvement with the arts provides unparalleled opportunities for learning that enables young people to reach for and attain higher levels of achievement. *Critical Links: Learning in the Arts and Student Social and Academic Development* (Deasy, 2002) reviews 62 arts education studies and reveals relationships between learning in the arts, cognitive development, academic achievement, and social behavior.

I discuss recent findings here, including brain, cognitive and dispositional research supporting the arts. Processes of the brain, body, and emotional world of a child cannot be separated into distinct categories – as Rabkin and Redmond (2006) observe: “Physical sensation and emotion are essential components of the mind, as integral to thought as logic is” (p. 63). It is not my intention to imply these areas of growth and development occur in independently; the effects of arts integration are multiple, relational

and intersecting, rarely occurring in isolation and often creating a snowball of change for students and schools.

The Brain

Neuroscience tells us experience in the arts has the power to influence the brain's neurons, circuitry and networks. Very young children who are singing, dancing and painting are making neural connections, which are wiring their brains for successful learning (Sousa, 2006). These connections and conditions in the brain influence emotional, cognitive, and psychomotor development.

A rash of commercial products such as the “Baby Mozart” series has focused the average consumer's attention to the possible effects of music on the brain and although the “Mozart effect” has been debunked as a temporary result from listening to classical music, research indicates music training in early childhood can have positive effects on spacial-temporal skills (Hetland, 2000). The association between music and math skills suggests an “overlap in the brain areas that are activated for playing music and solving math problems” (Jensen, 2001, p. 23). In addition to these spacial-temporal findings, brain research in music has been especially revealing in terms of improved reasoning, numeracy, and phonological awareness (Sousa, 2006). A toddler's involvement in early music experiences can potentially result in accelerated skills valuable to a school setting, although these correlations are difficult to measure in short-term studies, and require longitudinal research to address the effects of listening, composing, and training in music on cognition (Norton et al., 2005).

Other studies contend areas of the brain are affected by brain activity stimulated by arts processes – even when they are adjacent to the affected area. For example, if an

individual identifies an art form he or she is passionate about, maintains a wholehearted engagement with it including contextualized repetition such as that which occurs in rehearsals, attention networks in the brain become stronger and more efficient, in turn influencing general cognition skills (Posner & Patoine, 2009). In other words, you can improve your IQ through dedicated practice of ballet, ukulele, or sculpting as long as attention networks are active.

The Dana Consortium sponsored a series of research endeavors to investigate the relationship between the arts and the brain. Among the many conclusions:

- Training in music is linked to long-term memory and geometrical representation (Jonides, 2008; Spelke, 2008);
- Phonological awareness is correlated to both music training and the development of a specific brain pathway (Hunbar, 2008; Petitto, 2008);
- Acting training leads to memory improvement (Wandell, Dougherty, Ben-Shachar, Deutsch, & Tsang, 2008);
- Learning to dance is related to neural substrates that support complex action (Grafton & Cross, 2008).

It is safe to say the human brain thrives when engaged with the arts. Although this area of study is still in its infancy, it opens fascinating questions about the ability of the arts to transform the mind.

Academics

Cognitive studies draw relationships between academic success and artistic experience by suggesting skills practiced in an arts setting will transfer to other situations and content areas (for comprehensive literature reviews see Gullatt, 2008; and Burnaford,

Brown, Dohery & McLaughlin, 2007). Although it is difficult to show causality in these relationships, these studies often use Mathematics and/or Language Arts scores mandated by states through No Child Left Behind to demonstrate correlations between the arts and academic achievement.

Across the United States, individual schools and sometimes districts are introducing the arts into the classroom in efforts to reform their schools and improve students' achievements. In North Carolina, an A+ elementary school dedicated to reform through school-wide arts integration demonstrated a marked improvement in test scores over a three-year period. For example, 2nd graders went from 45% passing scores to 71% in reading, from 68% passing scores to 84% in math, and from 25% passing score in science to 62% in science ("Re-investing in arts education; Winning America's future through creative schools," 2011). A scientific study in New Jersey compared middle school student achievement in language arts classrooms with robust theatre integration to those without (Walker, Tabone, & Weltsek, 2011). The authors discovered for both Math and Reading, "being in an arts-integrated classroom increased the odds of students passing the state assessment by 77%" (p. 370). In other words, having access to arts integrated instruction has a more powerful effect on student learning than either gender or socioeconomic background. What's more, the authors discovered improved attendance rates as well as student abilities to sustain the benefits of arts integrated learning long after exposure to the arts integrated setting.

Similarly, Melnick, Witmer and Strickland (2011) used data from the Early Childhood Longitudinal study to compare proficiencies of fifth grade students nationwide who received arts instruction with those who did not. They discovered students who took

arts lessons outperformed their peers who did not take arts lessons in reading and mathematics competencies concluding, “it is clear that student involvement in the arts has a positive relationship with higher student achievement at some level” (p. 161). In a synthesis of cognitive psychology, Rinne, Gregory, Yarmolinskaya, and Hardiman (2011) argue engagement in the arts has positive effects on long term memory due to the effects of rehearsal, elaboration, generation, enactment, oral production, effort after meaning, emotional arousal, and pictorial representation. In essence, the authors provide evidence of students retaining more content for longer when they are engaged in representing materials repetitively, naturally, and emotionally through the arts. While there are many variables that help determine a student’s cognitive successes, and while test scores are only one measure of that success and may fluctuate given complex circumstances beyond a child’s school life, quantitative evidence consistently points to positive relationships between learning through the arts and cognitive performances.

Dispositions

Attitudes, habits and character traits are much more difficult to measure than academic performance, however a growing body of evidence points to ways arts education contribute to positive dispositional shifts in young people. Eisner (2002) suggests three important attitudes that seem to be influenced when arts are introduced in a school setting: a) the child becomes a risk taker, willing to imagine possibilities; b) the child develops a tolerance for ambiguities which contribute to effective problem solving; c) the child recognizes, cultivates, and accepts multiple perspectives. Other theoretical positions posit benefits such as the development of the imagination, motivation, creativity, engagement, and social skills (Melnick et al., 2011). Research in these non

cognitive areas receives less attention than research in cognitive areas as test results become an increasing national concern, nonetheless, several studies tell compelling stories of how children's behavior and wellbeing is impacted when they engage in arts experiences.

Caldwell and Vaughan (2012) studied the social and emotional wellbeing of students across Australia engaged in a multi-arts intervention program in their schools. The authors analyzed indicators of students' self-perceptions, resilience, social skills and values, work management and engagement, and school life. Results reveal the longer students are engaged in the arts, even if for only one hour a week, the more positive the impact in almost all areas of social and emotional well-being. This bolsters Hunter's (2005) report on the benefits of learning in the arts for Australia's students through enhanced: a) personal confidence; b) cooperation and collaboration; c) feelings of empathy; d) patterns of positive behavior; e) motivation, interest and participation in classroom learning; f) self-reflection; and g) planning for independent learning.

Closer to home, in a study intended to reveal teacher perceptions of how the arts impacted students with disabilities, Mason, Steedly, and Thormann (2008) contend students engaged in arts integrated learning were able to express their understandings, feelings, and beliefs openly without fear. They termed this "voice," or the unique ability for students to communicate personally and appropriately, thus building confidence. This is consistent with other evidence suggesting student engagement in the arts contributes to self-esteem through physical, psychological and social processes. Movement activities such as dance increase dopamine, adrenalin, endorphin, and serotonin production in the brain to create an overall sense of well-being, hence, children involved in physical

activity score higher on self-esteem measures than those who are not (Jensen, 2001). One study measures how children's involvement in theatrical productions creates a strong sense of confidence and self-efficacy as the process of engaging in a collaborative goal contributes to a child's sense of self (Sullivan, 2003). Similarly, in a study interpreting how intermediate school children experience engagement in dance class at school, Stinson (1997) explores a connection between self-expression and self-esteem. Her young participants explain how their dance creates an opportunity to be "who you really are to yourself" (p. 59), a chance to learn about and show others your true colors.

Arts Integration Models

The responsibility of providing children with arts experiences increasingly falls upon the shoulders of the regular classroom teacher, and "integration" has become the catch-phrase of salvation for arts in education (Cornett, 1999; Krug & Cohen-Evon, 2000; McDonald & Fisher, 2000; Skilling & Carstensen, 2003). Some believe using the arts for instrumental outcomes, especially when justifying the presence of arts in the curriculum based upon educational objectives that are not unique to the art, demean, devalue and dilute the arts (Eisner, 1972). Stokes (2004) argues against this notion that integration leads to negative ramifications and further marginalization of the arts in the school community in a study that reveals "arts experiences, even when placed within the context of an arts-integrated agenda, continued to be powerful ways through which to transmit specific arts concepts and understandings" (p. 62). Arts educators commonly publish examples of best practices in which purposeful integration increases student interest and understanding in both the art forms and core content materials (Fisher & McDonald, 2004; Warner & Andersen, 2004).


There is no universal definition of what arts are and what arts integration should look like. Remer (1990) envisions an upward spiraling evolution of integration, including teaching “with”, “in”, “through”, and “about” the arts. Similarly, Murray (2004) begins with a framework crowded with prepositions, discussing drama as something that can be done “to,” “for,” or “with” children, but she develops her ideas into a continuum of status: peripheral, utilitarian, craft, and finally art. Chicago schools have been implementing arts integration for more than a decade as a process involving co-planning and co-teaching between the classroom teacher and a specialized teaching artist (Rabkin & Redmond, 2006) to meet multiple and evolving objectives in both content and the arts.

Bresler & Gardner (1995) categorize observations of arts integration by teaching style. They see a “subservient” approach used most commonly, in which craft-like arts activities spice up other subjects (p.33). They rarely observe the “co-equal, cognitive” approach in which higher order cognitive skills combine with aesthetic qualities in meaningful learning (p. 34). Bresler & Howard observe an “affective” style utilized to change the pace or mood of a classroom as students become immersed in feelings and responses stimulated by experiences in the arts (p. 35). Finally, they describe a “social integration” style in which schools stage performances in the arts in the spirit of community celebration. These varying descriptions help to characterize the various ways we see arts integration happening in classrooms, although Pomaika‘i Elementary School has adopted the definition of arts integration developed by the Kennedy Center: “Arts integration is an approach to teaching in which students construct and demonstrate understanding through an art form. Students engage in in a creative process which


connects an art form and another subject and meets evolving objectives in both” (“What is arts integration: Explore the Kennedy Center’s comprehensive definition,” 2012).

A study on the nature and quality of arts integration in schools tentatively suggests arts integration has come to mean using the arts to teach content on tests in this era of accountability. The authors also suggest schools serving a low socio economic status population tend to provide the arts in a subservient fashion, as low quality ornamentation to tested material. They contend a stronger coequal relationship between the arts and tested subjects is only maintained in schools with a strong arts focus, mission, and trained faculty committed to the endeavor (Mishook & Kornhaber, 2006). Rabkin & Redmond (2006) detail characteristics of powerful arts integration programs.

The best programs:

- Draw on the artistic resources of their community, building  sustaining partnerships between schools and arts organizations and between teachers and artists.
- View student achievement and school improvement as pivotal to their mission – they are not only about advancing arts education.
- Engage artists, arts specialists, and teachers from all disciplines in serious inquiry about making powerful pedagogical and curricular links between the arts and other subjects.
- Use the arts as media to communicate content and as methods of learning such as careful observation, inquiry, practice, creation, representation, performance, critique and reflection.

- Provide arts instruction both within the context of other subjects and as a subject in its own right.
- Raise funds from outside the school system to support their arts integration work, while persistently seeing higher levels of commitment from schools and districts. (p. 64)


Pomaika‘i Elementary School meets every one of these criteria. In addition, the school meets the general criteria set forth by Wagner (2012) describing schools that prepare students to become innovators. These schools must emphasize and value: a) collaboration versus individual achievement; b) multidisciplinary learning versus specialization; c) trial and error versus risk  avoidance; d) creating versus consuming; and e) intrinsic versus extrinsic motivation.

As the first and only public school in in Hawai‘i with a whole school arts integrated curriculum, Pomaika‘i supports a full time arts integration coordinator who ensures quality professional development, modeling in all classrooms, coaching to all teachers, and professional learning communities focused on arts integration practice. The school also has a deep partnership with Maui Arts & Cultural Center (MACC), ensuring the school’s access to the nation’s best arts education consultants and presenters. The staff and board of directors at MACC have sustained an ongoing commitment to raise funds to support meaningful arts integration at Pomaika‘i Elementary School. In addition, MACC and the DOE’s Maui District have been members in the John F. Kennedy Center for the Performing Arts program *Partners in Education* since 1995, and since then have been providing Maui’s generalist teachers with high quality professional development in

arts integration. The Kennedy Center also supported three years of research at Pomaika'i (2007-10) and consultation on developing a culture of shared leadership at the school.


Since its inception, Pomaika'i has developed a general model in which: a) all teachers are trained and supported in drama integration throughout the year; b) ukulele and visual arts are provided by part time arts specialists; and c) all students receive dance residencies from the teaching artists of Maui Dance Council. Professional development introduces teachers to specific drama strategies such as tableaux, character role-play, and storytelling. Teachers receive model lessons demonstrating the strategies in-action with their students, as well as coaching from teaching artists and the school's arts coordinator as they strive to provide a coequal, cognitive approach to drama integration. In addition, each year a rotating group of teachers engages in a collaborative residency with a teaching artist with the gradual transfer of arts instruction increasingly falling upon the generalist teacher's shoulders. Finally, the school has received consultation and training to address global issues beyond the scope of arts integration, including subjects like learning communities, shared philosophy and vision, critical thinking, essential questions and enduring understandings, and parent involvement to ensure the continuity and sustainability of their efforts.

Method

This qualitative case study focuses upon the way individual graduates of Pomaika'i Elementary School experienced it.  how they felt about the instructional activities, how they understood the concepts involved, and how they perceived changes in themselves. The case study research strategy employs thick description and thorough analysis to explain the impact of an education driven by arts integration at the elementary

school level within the real-life contexts of young people. I tell their stories and impressions to help explain how the Pomaika‘i experience has informed the interests, achievements, choices, sensibilities, and skills of young people as they enter middle school. This study does not strive to meet typical research criteria of reliability or transferability, but does propose to rigorously explain the significance of arts integration within a broader context of school and life with truthfulness.

Participants

I purposefully selected eight key student participants with the assistance of Pomaika‘i administrators and counselors. I invited one group of four students, just graduating from the 5th grade at Pomaika‘i Elementary School and poised to enter middle school. The other group of four Pomaika‘i graduates just completed their first year at Maui Waena Middle School as 6th graders. The same selection criteria was applicable to both groups of students who had: a) experienced arts integration in Pomaika‘i classrooms where teachers implemented strategies and pedagogies with dedication and fidelity; b) attended Pomaika‘i Elementary school for three or more years,  and transitioning to middle school; and c) strong communication abilities. Each group was represented by a cross-section of boys and girls with a range of ethnic and socio-economic backgrounds representative of the school.


To triangulate student responses, I also interviewed one or more of the key participants' parents, and one of the key participants' teachers. A total of ten parents (in two instances a mother and a father both participated) and six teachers (two teachers had more than one student in their classes) contributed to this study. I interviewed two 5th grade teachers from Pomaiki, and four teachers from Maui Waena Middle: one 6th grade

Science teacher, one 6th grade Language Arts teacher, and two 6th grade Math teachers. Each of the middle school teachers were also the Home Room Advisory teachers to the 6th grade students who participated in this study. In this small, close-knit community, several of the teachers I interviewed also have children who attend Pomaika‘i and several of the parents are also teachers or coaches of the Pomaika‘i graduates. They volunteered multiple perspectives not limited to a single role. In accordance with DOE and IRB guidelines, participants provided informed consent or assent, and all names have been replaced with pseudonyms.

My position as a researcher is that of both insider and an outsider for this project. I am an arts educator who has provided professional development to Pomaika‘i teachers both in and out of school settings two to four times over the course of a typical academic year for the past three years, although the student and parent participants were not familiar with me in this capacity. Being an insider has had its benefits; I am familiar with related literature, theory, and policy related to arts education, well-acquainted with the arts-integrated curriculum at Pomaika‘i, and recognize the vocabulary of the arts. Alternatively, the responses of some of the participants may have been influenced by what they perceived I wanted to hear. I do have a vested interest in seeing the arts thrive in Hawai‘i, however I temper this bias with a healthy dose of scrutiny and skepticism. It is my best intention to better explain, and not overstate, how the arts might contribute to a young child’s education.

Data

A range of information, both qualitative and quantitative, informs this inquiry from a variety of sources: focus group discussion responses, individual interview


responses, survey responses, artifacts of student work, standardized HSA test scores, attendance records, and grades. The intention of this range is to provide dimension, depth and strength to an evolving understanding  the phenomenon of arts integration. Protocols and surveys are included in the appendix.

Student Focus Groups. I initiated the study with two focus groups, one for each group of students from Maui Waena Middle School and Pomaika‘i Elementary School. The focus groups provided an opportunity for student participants to communicate who they are in a safe space – their strengths, interests, abilities and priorities. I asked them about their memories of elementary school, their impressions of their arts experiences, and their goals for the future. My primary intention for these focus groups was to establish rapport and begin forming a relationship with the students based on a mutual understanding of the goals for the research project. I also asked some of the same questions I would repeat later in the student interviews so the young participants might consider their responses thoughtfully and independently over time.

Student Interviews. Following the focus groups, I interviewed each student individually, loosely following a protocol designed to elicit specific reflection on each child’s strengths, challenges, and abilities. I asked them extending questions based upon the responses they provided in the focus groups and probing questions to elicit more evidence to support their observations. I asked the student participants to delve more deeply into their Pomaika‘i experiences, and reflect upon how those experiences played out in their current ~~and~~ lives and imagined futures.

Parent Interviews. I interviewed parents to hear more about their perspectives on the impact of Pomaika‘i’s culture, vision, curriculum, arts integration pedagogy and the


impact of these things on their children. Understanding who the parents are and how they perceived the purpose and value of Pomaika‘i’s approach to arts integration added detail and dimension to the information the young participants shared and provided a parent’s perspectives to establish some consistency with student self-perceptions.

Teacher Interviews and Student Work. I also interviewed the key participants’ teachers to gather information generally and specifically about the influences of the arts integration methods occurring at Pomaika‘i. The middle school teachers were able to reflect on the characteristics of Pomaika‘i students attending their school as a whole, as well as the individual strengths and abilities of the children participating in this study. The elementary teachers had the insights of first-hand experiences teaching at Pomaika‘i and were able to provide both general and specific comments about the strengths and challenges of each key participant as well as Pomaika‘i graduates in general. The teachers provided artifacts to bolster their perceptions, specifically discussing and analyzing three pieces of student work they co-selected with each student participant. Artwork and/or academic work helped demonstrate the character of the student participants, how they express themselves  at they know and can do academically.

Social and Emotional Well-Being Survey. During their interviews, I asked students, parents, and teachers to each complete an assessments of items adapted from the Social and Emotional Well Being Survey designed and validated by the Australian Council for Educational Research (as cited in Calwell & Vaughn, 2012). The participants used a Likert scale to rate indicators observed and/or experienced in terms of the student’s resilience, social skills and values, engagement, and attitudes about school life.

Test Scores, Grades, and Attendance Records. Hawai‘i State Assessment (HSA) test scores, grades and attendance records provided quantitative evidence regarding the academic activities of Pomaika‘i students. Attendance records reinforce perceptions about student engagement with learning; one might assume a stronger attendance record indicates a willingness and even desire to come to school. Aggregate data contributes to the picture of how graduates of Pomaika‘i Elementary School fare in comparison to graduates of other feeder schools, and information about the individual participants contributes to the descriptions of each individual participants’ particular academic strengths and struggles.

Analysis

I recorded and transcribed each interaction, and upon completion of the data collection, I used Dedoose software to manually categorize patches of discussion into an initial set of codes. Combining all the information available, I detailed short profiles for each student and conferred with the parents by sending them the write-up to ensure my impressions rang true. Using a grounded theory approach, I anchored codes based on emerging patterns and themes, grouped the content of the data in order to help explain it, and conferred again with participants to test the veracity of these explanations. In an iterative process of categorizing and re-categorizing, several important non-cognitive factors became apparent, and I began to use these terms to aid labeling, defining, and synthesizing ways arts integrations^s apparently influenced the participants (Farrington et al., 2012). I chose to minimize my use of the data  Social and Emotion Well Being Survey to support the descriptions and explanations. The ratings appeared highly subjective, and even two parents of the same child had different perspectives for each item. I felt it was

not valid to compare student ratings between the students, however I have chosen to include aggregates of the highest and lowest items, averaging the ratings of students, parents, and teachers, to help describe student experiences. While this discussion is limited to the experiences of a small number of students and families from one Hawai'i elementary school, it could inform other educational settings with similar goals based on teaching and learning through the arts.

Meet The Graduates

The eight key participants in this study seem to have a great deal in common: good grades, strong test scores, positive attitudes, the expectation they will attend college, and the respect of their parents, teachers and peers. The young participants expressed strong commitment to family and come from stable homes where two parents have middle class jobs. Given these striking similarities, I was surprised to discover a range of perceptions about how Pomaika'i's arts integrated approach to education had influenced each of them. The following profiles of these student participants describe who they are, what they care about, and their interpretations of the effects of the arts in their lives as they transition into middle school.

Marco

Marco's reputation precedes him – long before I met this young man, I had heard that he was precocious, garrulous, and fearless. His mother, a middle school teacher, and his father, an environmental consultant, appreciate these qualities, but “have no idea where he gets it.” An only child, Marco's mother gave him early exposure to museum experiences and environments when he was a toddler, but as he grew older, the family's interactions with the arts became less frequent. Even so, Marco has always had an

“affinity for narrative” – telling, writing, and performing stories through a variety of modes, from doodling to Lego stop-animation.

Upon first meeting, he seems like a typical local boy of his age, a bright-eyed combination of Filipino-Korean-Indonesian-Dutch-Chinese ancestry. Marco enjoys being with friends and family, playing video games, and is well-rounded in his academic studies. He does not consider himself an athlete, but handles that subject with self-deprecating grace and humor. Marco loves music, plays percussion in the school band, ukulele on the side, and could even see himself as a professional musician in the future. His teacher describes him as a young man with “quality going on inside” referring specifically to his sense of joy and sense of justice.

During our focus group I asked the students to draw symbols to represent the kinds of things they value. For one of Marco’s responses he explained:

Over here I tried to make an X-box, because I like gaming, so I tried to make a remote, but I think I kinda failed at it so I turned it into a cat. But I have two cats, so I made an X times 2, times two cats.

This moment demonstrates Marco’s quirky creativity and wit. He did not allow his “mistake” to deter him, but embraced the flaw on his doodle and answered the mundane prompt with surprising resourcefulness.

Although Marco may have been born with his outgoing disposition, all of the study participants who commented on Marco’s behalf agreed that the environment and opportunities of Pomaika‘i brought out his ability to communicate openly, clearly, and without a trace of self-consciousness. Part of Marco’s legendary status involves an

especially memorable third grade performance when he was the narrator for the story of “How Maui Slowed the Sun.” His mother described it:

So, the day – this is third grade now [laughter] – the day of, they got this little kid and he’s telling the whole story and it looks like he’s narrating it live because he’s lip syncing the whole thing and then when he told the story, he like gave voices to the characters like he, he, he you know... We were stunned when we saw it.

Marco and his peers also remembered and remarked on this moment as a “turning point” when Marco gained recognition for his skilled delivery, a new-found confidence, and a passion for performing that he carries with him today.

Corrine

Corrine expresses a strong value for the performing arts and especially music; she plays ukulele, is a committed member of a taiko drumming ensemble and plans to join the marching band when she gets to middle school. She is also enthusiastic about her dance experiences in school, fondly recalling lessons when she compared and contrasted ways different historically marginalized groups communicated by dancing. After family and friends, the arts are the next most important thing in Corrine’s life.

The daughter of two accountants, Corrine is an unlikely arts enthusiast. In their youths, her parents thought of band as an “uncool” hobby, and as adults, arts experiences “foreign.” However they have become more involved in recent years; even though they do not consider themselves artistic, her parents have joined the Corrine’s taiko ensemble and are already active as band boosters. They are surprised by this involvement, getting “yanked in” and finding, six years later, how it has grown on them. Both parents feel that

the arts had very little influence on them in their childhood and early adulthood but find value in it for their daughter.


Corrine is a tall, outspoken Japanese girl, born and raised on Maui, with an older sister. Corrine is academically strong, with high test scores and excellent marks in almost every subject area. She has full expectation that she will attend college, but after that, has plans to become a chef.

Her parents characterize Corrine as especially expressive and imaginative, and believe she has had more exposure and opportunities to work with those strengths at Pomaika'i. To them, this is how Pomaika'i stands out; it provides experiences for the children to "Try different things to help them grow as a person versus just schooling itself." They believe the exposure to the arts contributes to brain development:

And kids, their minds are just wide open. So to me, when they're young, that's when they should be trying to challenge all the different aspects of their mind and not just structure. So I think having an arts program...It allows them to stimulate different parts of their brain that the standard curriculum doesn't.

Corrine holds Pomaika'i responsible for her musical interests, "If it wasn't for Pomaika'i, I might not have liked music this much, because we had music classes, and that really made us understand music more and to get more." For her, arts education in her formative schooling has opened doors of possibility.

Charlie

The oldest of three boys in a Filipino-Japanese family, Charlie is the son of two accountants.  He is meticulous in his schoolwork, with a keen eye for detail and attention to structure and organization. He aspires to achieve a scholarship for college and can

easily see himself either playing professional sports, or perhaps being a CEO in business, like his father. Such ambition is reasonable given his drive, high scores in mathematics and love for science.


This quiet young man may excel in math and sports...but not in the arts. Upon first meeting, he told me candidly that the arts are at the bottom of his life's priorities: "I don't care for arts, I'd rather do active things, like playing or running." Drama makes him uncomfortable, and he does not participate in any arts classes or activities outside of Pomaika'i. To clarify, this does not mean Charlie is without talent; in second grade, Charlie submitted a drawing of a tiger for Chinese New Year and won the competition, but in his mind this was "only by luck." More recently, his abstract self-portrait bore the title: "Sporty," as if to re-channel his self-expression back into athletics. While he might not be a musician, Charlie enjoys listening to music – from country to hip-hop – and has an appreciation for how it can affect his mood: "I like to listen to a lot of rapping and then, just before anything, like if I got to do a test or something, I do rapping to pump me up, and then country to keep me settled and stuff."

Even though he does not see himself as an artist, Charlie and his family perceive significance and value in his arts integrated experiences at Pomaika'i, perhaps even more so because it is not an easy fit within their lives. His father explained how the experience at Pomaika'i has impacted his son:

One thing that I see is a lack of fear to express himself. I think at that age, if I were told to go into a room and, say, act out a scene, I would be in my shell. No way, right? And he's not a very outgoing kid, but he's not afraid to do those things. And I think that's how it's affected his learning, is -- you know, just not --

it's just part of him. And just because his school is like that, he doesn't think any differently ... And I think if he had gone to a school where it's just do these number of math problems, read these number of books by a certain time, he would be more introverted. He still is introverted, but he's, just, you know, not afraid.

Charlie's teacher makes a similar assessment:

I think that  the arts gave him an opportunity to explore a side of himself that he wouldn't get to somewhere else, because I could just see him falling too heavily on the academic if he was maybe somewhere else that didn't have as many art opportunities for him.

The adults closest to Charlie see arts learning opportunities as means for building self-confidence, inter-personal skills and counter-balance his academic drive.

Brittany

Fashion design, sewing, drawing, piano, hula, jujitsu, junior counseling, and media club – all ways Brittany occupies her time when school is out. In school, Brittany enjoys and succeeds in Math and Art classes, has strong social bonds and interactions, and seems to have mastered academic life in general. When I ask her about her experiences at Pomaika'i, she bubbles over with example after example of learning experiences in dance, visual art and drama. During my stay on Maui, it seemed I caught glimpses of Brittany at every turn, on her way to and from her many activities with a whirlwind of enthusiasm.

Brittany's mother has had limited involvement in the arts: "Other than crafts, I don't do anything artsy," but the family does attend community plays and even Broadway

productions when they have the opportunity. A Japanese-Filipino-Spanish-Chinese mix, Brittany is the daughter of two parents who were born and raised on Maui. Her father is a police sergeant, mother works for a transportation business, and little sister a third grader at Pomaika'i. With her diverse interests and strengths, Brittany's Math teacher can imagine her succeeding in a range of careers in her future, from journalist to hotel manager, even though Brittany truly aspires to be a fashion designer.



Brittany's mother believes "the school played a big part in her developing a love for art" but possibly more importantly has stimulated her ability to think creatively and independently:

Through [art], they encourage a child to think, to give input, to let their minds think. I guess it goes back to not just what is black and white and $1+1$ is 2. It allows them to expand the way they're thinking and not just leaning by memorization. They're actually learning to come up with their own ideas.

Brittany's mom touches upon several important ideas in this quote. To her, the arts, often touted for being hands-on, are also minds-on in ways that encourage critical thinking ~~also~~ develop an individual's ability to form and own ideas they have developed themselves.

Brittany's mother values the education her daughter received because it taught her *how* to think, not *what* to think. Brittany attributes the thinking process to being able to visualize concepts by literally creating pictures on paper or with her body, but also by "drawing pictures in my head." For Brittany, learning through the arts helped her to become a better thinker.

**Glenn**

Glenn may be the closest to a Math genius as I have ever met. His grades, test scores, levels of enjoyment, and anecdotal evidence from the adults in his life all highlight Glenn's computation and logic skills. While he has  enviable ability in mathematics, he has little patience for reading but has enough perseverance to succeed academically in all content areas. The son of an  engineer and a nurse, Glenn is the oldest of three siblings, enjoys baseball, having fun with his friends... and math. He listens to popular music, like Bruno Mars or Adam Levine, and sometimes dances along, but otherwise does not have any voluntary interactions with the arts. He seems to admire his father, an avid sports enthusiast, and is interested in following in his father's footsteps down a similar career path in construction or architecture.

Glenn's mother explains, "We're not into the arts, at all." Although neither she nor Glenn's father have had much interaction in the arts, she believes Glenn's arts experiences at school have given him confidence to take the stage in front of a group, even if to teach a math problem, and admires how he seems considerably less shy to do so than when she was his age. Glenn's teacher believes the arts were able to "bring out his character," and involve him more in the community of the classroom than he might have been otherwise:

I think the arts, especially drama and dance, forces him to have to be a part of the community, and he has to help. There's no other way to do it in order for the group to reach their goal or to show what needs to be done without everyone helping and being a part of it.

In my interactions with him, Glenn was well-mannered and quick to please. I also got the impression from speaking with others that he might be conservative in expressing himself, content in a more independent environment, preferring to process problems on his own. The Pomaika‘i environment may have challenged him to communicate physically and verbally, collaborating with others in a variety of group settings.

Joshua

The only participant in this study to place the arts at the top of his priorities, Joshua is clearly a divergent thinker, writer, and speaker. When I asked what feeling he gets when he thinks of Pomaika‘i, he responded: “Happy and vibrant, kinda like a cartoon...like everything was perfect.” The response stood out to me on account of his word choices, but also his earnestness – Joshua thinks before he speaks, and means what he says.

Joshua seems to know himself well. He is a writer and a dreamer. When I looked at his academic portfolio I was struck by the dearth of white space; he fills up all the blanks on his worksheets with writing and writes with a strong voice, wit and rhythm that he owns. He thinks in terms of stories and allegories and gets enthusiastic about postmodern interpretations of fairy tales. In his Language Arts class he proposes alternative endings, questions authors’ choices, and wonders about character perspectives in the stories they read. He talks about living in other countries, like Japan, and going to Europe, intrigued by all the different people in the world. After college he imagines moving to a city on the US continent and becoming a writer for Disney.

Joshua is Filipino-Japanese with a family engaged with the arts. His father, an elementary school Student Services Coordinator, plays guitar and ukulele, even performs

at weddings and parties in his down time. His mother is a middle school teacher, once played piano, and has made a concerted effort to enroll Joshua and his older sister in music, dance and art classes. At Pomaika‘i, Joshua participated in ukulele classes, has fond memories of making “trash-art” and is especially proud of playing the role of Maui in the 3rd grade performance of “How Maui Slowed the Sun.” He draws well and enjoys visual arts, but also puts pressure on himself for representative precision in a way that can cause some stress or anxiety. If the image on the paper does not match the image in his mind he can be critical of himself, one possible reason his mother identified for why he has pursued creative writing over art.

Although he has a home and disposition that foster creativity, Joshua and his mother both feel Pomaika‘i helped him take risks and embrace that creativity. Because of his candid, self-critical, and sensitive nature, Joshua seems especially hard on himself. He has benefitted from a learning environment that emphasizes open-ended thinking and questioning, where there is no “right and wrong answer.” He explained that the arts education at Pomaika‘i taught him...

...how to be yourself. Be more independent and don't let anyone change who you are. Like don't follow the crowd when you see something's not right. Just be who you are. And have your own opinion.

Pomaika‘i has helped Joshua be comfortable with who he is and both recognize and pursue his creative potential.

Theo


I met Theo shortly after he had performed in a “Trash-Art” event for which students at Pomaika‘i had designed their own apparel out of repurposed garbage and were

prepared to perform as mannequins for a mock-fashion show. The MC for the event unexpectedly went off-script and started to challenge the young models to improvise. His teacher describes the moment when Theo entered the stage:

When Theo came in, he basically didn't pose like he was supposed to. He took that moment to dance for the whole crowd. So here he is, in his humungous trash art vest that he created with all the video game cases and plastic bottles glued and sewn into his pants. So he is bulky. And here he goes. He just goes for it, he's getting on stage, and he's just hustling and it brings so much joy to everyone. So his art and his performance, there's a lot of joy that comes from him.

The episode is significant in that it demonstrates Theo's ability to think on his feet, take risks, perform under pressure, and bring joy to his community. I see these same characteristics in a perspective drawing he creates with wildly energetic lines moving in all directions. His teacher told me how he wanted to cover the central figure's entire T-shirt with words, and when she asked him to limit his use of words, he settled with a simple phrase: "The Bacon Battle." These episodes define the showmanship of a young man who seems to enjoy life to its fullest.

Theo is close with his mother, a first generation immigrant from Manila who moved to Hawai'i to marry his Irish father, later to be separated. She is a property manager for several communities and condominiums, re-married with a real estate appraiser with two children from a prior marriage. She was a competitive expository speaker in her youth and supports Theo's performing interest by enrolling him in hip-hop classes and encouraging him to try different instruments and acting.

Theo is a social animal who enjoys a range of activities with his friends: going to the mall, playing video games, and practicing magic tricks. He loves learning, and sees school as a social place where he can both learn and play simultaneously. His future ambitions are unclear because he seems excited by what he is experiencing at the moment; after a teacher taught him to make books he wanted to be an author/illustrator,  he attended ocean camp and wanted to be a marine engineer, he watched National Geographic and wanted to be a pet shop owner. When I last spoke to him, he was toying with the idea of becoming a video game designer.

Theo thrived at Pomaika'i, a place that encourages idiosyncratic self-expression and social engagement through the arts. His mother believes:


There would be very limited source of inspiration for him if it only depends on what happens at home. Yeah. The great support actually comes from the school, because this is where he's excited to come to. This is where his friends are. And to do something that he really, really loves and inspired, that would be yeah, the greatest factor.

While it has given him "a place to shine" it has also given him intrinsic aspirations for self-control. His mother explained:

Well, I can tell you very frankly about the discipline he got from dancing. He needs a lot of discipline. In the past, he used to do tae kwon do, and these two genres promote strict discipline because of repetition and the kind of movement, the kind of temperament, even, that the participant needs to have. I think that is contributory to what a good person is, at least I think so.

At Pomaika‘i, Theo experienced both the freedom to fly and the reigns of discipline that come with commitment and dedication to an art form.

Taylor

When I met Taylor, one of the first things I noticed about her were her dangling earrings made of the flip tops from soda cans, sparkling in the light. She made them herself. Taylor’s teacher described her as “well rounded” and a “model kid.” Talented, but humble, Taylor plays percussion in the school band, viola, soccer, and taiko drumming,  equally well-rounded and grounded academically, with a high value on achievement. Taylor demonstrates compassion; her Math teacher told me how her son was ill, and Taylor inquired about improvements and make suggestions for how to deal with the side effects of antibiotics. Taylor has a quiet ability to reach out and connect with others, a subtle maturity that surpasses her youth.

Taylor’s mother is a dental hygienist, and her father is an electrical lineman who works off island, but comes home on the weekends. She is the middle-child with an older sister and a younger sister in a local Japanese family that encourages engagement in the arts, especially classical and Broadway music. Taylor has expressed gratitude and understanding for the role the arts have played in her life, detailing memories of arts integrated learning at Pomaika‘i: dancing to model the movements of the solar system, tableaux to understand character motivation in literature, and molding a *va ‘a* (canoe) out of clay to learn about Hawai‘ian voyaging.

Taylor can be soft spoken, and sometimes seems to second-guess herself, but she has a clear sense of who she is and what she wants. She attributes this sense of identity to the presence of arts in her education at Pomaika‘i:

They tell you not to just be like a plain person. They want you to be like unique and your own self. They wanted you to express what you feel and like to stand up for what you believe.

She learned this through her interactions with teachers, students, and the content of the curriculum. Perhaps the most influential experience she had at Pomaika‘i was being on the morning announcement team, which harnessed her skills in public speaking and sparked her interest to pursue a future in broadcast journalism.


Discussion


Although the profiles of each student highlight varying perspectives on student development as a result of arts learning experiences, several cross-cutting themes arose over the course of this inquiry. I have organized these themes as *noncognitive factors*, defined as “ways students interact with the educational context within which they are situated and the effects of these interactions on students’ attitudes, motivation and performance” (Farrington et al., 2012). Cognitive domains of human experience, measured by IQ and standardized tests, explain what a person knows and can do with content. Noncognitive factors include everything else: feelings, attitudes, personality traits, beliefs, behaviors, habits, motivations, relationships, engagements, and strategies that contribute to a human’s capacity to learn.


Middle school teachers at Maui Waena did share their perceptions about patterns of Pomaika‘i student cognition. One teacher explained:


They seem to be much more well-prepared because they know the basics more.

We don’t need to review as much with them. In that way, Pomaika‘i has prepared their students a little bit better as far as math, yeah.

In addition to these observations, HSA standardized test scores reveal... (to be determined). However, while strong performance in an academic subject area such as Math may be clearly present, it is unclear if this is attributable to an innovative Math curriculum, extra preparation individuals have pursued in afterschool Kumon classes, the educational background and interests of the parents, or learning through the arts. Few participants in this study had explanations or evidence to support the idea that Pomaika'i's approach to arts integration had impact on the student cognition.  The small sample size of this study would be insufficient in informing such an investigation regardless.

Conversely, noncognitive factors are not easily measured through objective lenses,  closely tied with the socio-cultural context in which learning takes place, and simultaneously involve cognitive, affective and psychomotor processes. Likewise, art education (when taught well) is by its nature a subjective, collective, and a hands-on-hearts-on-minds-on engagement, and as such, an appropriate fit with a noncognitive framework to examine impacts on academic performance. Noncognitive factors also provide an appropriate lens for viewing policies driving this state's decisions in education and the transition ~~between~~ from primary to intermediate grade levels. The recent launch of Common Core State Standards in Hawai'i has initiated a conversation about what it means to be ready for college and a career, and what influences that readiness. Studies focusing on ~~the~~ college student achievement conclude that noncognitive factors contribute to college success rates, and that admissions procedures might do well to attend to such factors (Delaney, Harmon, & Ryan, 2013; Noonan, Sedlacek, & Veerasamy, 2005; Schmitt, 2012). Long before they reach college, young people face

educational transitions – from elementary school to middle school, from middle school to high school – and upon each transition they face the vulnerability of developmental shifts in identity, belief system, inter-dependency, and relationships (Neild, 2009). Grade point averages in middle school are early indicators of performance in high school, and academic behavior  are a better indicator for success or failure in the 9th grade than achievement test scores (Neild, Stoner-Eby, & Furstenberg, 2008).

A recent meta-study published by the University of Chicago Consortium on Chicago School Research (Farrington et al., 2012) details the promise of noncognitive factors, organizes them into overarching categories, and reviews evidence among the literature of each factor. This study adopts three categories within the Chicago report: a) *academic mindset*, or the psychological and socially related attitudes that a student holds with respect to his or her academic goals; b) *learning strategies*, or strategies that support thinking, remembering, or understanding concepts; and c) and *social skills* or interpersonal behaviors such as interacting with others in socially acceptable ways through cooperation, assertion and empathy. 

Academic Mindset

A student who has developed positive attitudes and belief systems about school and about themselves as learners are likely to experience positive learning outcomes as a result of an academic mindset (Farrington et al., 2012; Lipnevich & Roberts, 2011). Beliefs about the importance of fixed character traits, such as talent or intelligence, can be detrimental to student success if these beliefs are not combined with attributes that can be developed through dedication, reflection, and discipline, and this emphasis on growth can in fact increase intellectual achievement (Dweck, 2012). At Pomaika‘i, art integration

supports academic mindsets by contributing to the development of drive, persistence, belonging, intrinsic value for school, and self-confidence.

Drive. Corrine likes doing homework. Joshua enjoys being graded. Glenn appreciates how his teacher, “pushes and pushes each one of us to reach our goal and to never fall behind our goal.” Teachers consistently describe their Pomaika‘i students as hard working, responsible, and driven. Pink (2009) defines drive as that which guides individuals to innovative engagement and excellence through a sense of autonomy, mastery, and purpose, a concept with powerful applications for both higher learning and the work place.

Speaking of Pomaika‘i students as a whole, one teacher explained, “They're more academically focused, they're with it. They're attentive; they're paying attention to score higher.” Another teacher shared with me how her Pomaika‘i students passed the HSA test on the first attempt became quite disappointed when they learned they could not take it again:

They're so driven, they're very driven, they're always the ones, like, HSA this year, we said, “Okay, you only take them once and you're done. And you don't have to take it anymore. That's it. That's all.” They were sad, many of them, and some of the Pomaika‘i kids. They wanted their score higher, even though it exceeds proficiency.

Joshua's teacher described his desire to exceed expectations: “He always asks about the rules and stuff. He's very like -- if you say, ‘I want just two,’ he puts five. That kind of overachieving.” Charlie's teacher also noticed how he “holds himself to high expectations” and pointed out a variety of details in his academic work that “shows me he

really cares.” This is a common theme for all the participants in this study who are motivated and focused with goals to demonstrate ability beyond basic proficiency. Their drive is characterized by tenacity and grit; they have long-term goals they are passionate about and seem eager to persevere through whatever challenges they may ~~be~~ face.

For the young people in this study it is not enough to simply get something done, but to do it *well*. Charlie said he learned an important lesson during a drama experience:

If you’re going to do something, do it, like all you can. Like, don’t do it half way. Even if it makes you feel awkward. Like in drama, I did a lame tree pose, and then my teacher said, ‘Try to be more creative.’

This scenario emphasizes how the arts require a commitment to quality, or else the half-hearted results are imminently observable. Charlie is also proficient self-assessing and revising his schoolwork; his teacher commented, “He can assess for quality, you know what I mean? Like I can be like, ‘Look at this again,’ and he can assess and revise.” The ability to persist through multiple attempts in the pursuit of mastery is a highly valuable academic mindset.

Autonomy is evident in the way this study’s young participants attend to detail and precision, but not in a cookie-cutter way that might indicate they are filling in the blanks on a template, or checking off requirements from a checklist. There are unique qualities in the work of each student, indicating an authentic engagement with their assigned tasks. For example, Theo wrote a story based on a prompt about falling:

One day, Joe was eating grapes, and he said, ‘These grapes taste funny.’ So he spat them out. Then he noticed a small purple dot that got bigger and bigger. As he got closer, he was sucked in.

His teacher noted how this introduction needs work in terms of detail and fluency, but the strength of the idea stood out to her: his classmates wrote realistic stories about falling off of tall buildings, but Theo fell into a fantasy world on another planet filled with caves, castles, giants and “purplish people.” Quality is not synonymous with perfection, and each child clearly has his or her own strengths and weaknesses when they are simultaneously engaged in self-expression.

I contend that processes unique to the arts, such as rehearsal and art criticism, have contributed to the drive apparent in so many of the student participant’s mindsets. Rehearsal is an integral part of the performing arts, and teachers at Pomaika‘i consistently challenged students to develop, reflect and revise their work in a process akin to rehearsal. This is a natural part of an assessment loop in which teachers and students analyze their own performance and the performances of others to actively seek out ways to progress and improvement. Teachers at Pomaika‘i also engage students in critical thinking protocols around the exemplary artists such as Pablo Picasso or Alvin Ailey, asking students to describe, interpret and evaluate. Marco’s mother observed about his 4th grade teacher, “She taught them, you know, what quality work looks like through art.” While it is likely that many factors have contributed to the high levels of motivation I observed, it is also credible that the arts played a role.

A necessary element of drive is the mindset of perseverance, or an individual’s belief that he or she can succeed, even when a task is uncomfortable or challenging. Corrine eloquently explained how she deals with adversity, “If I know that I want to do something or I want to become someone, then I know that I can just keep striving to be that person.” She holds Pomaika‘i teachers responsible for imbuing her with this attitude,

“Well, my kindergarten teacher, Ms. Kendra, she would always say, ‘Whatever you dream about, just go for it. If there’s a problem, try and pass, like go.’” Glenn also found lessons of resilience in the way his teachers challenged him during arts integrated lessons:

GLENN: Yeah, because Mrs. Wilcox, if we did something wrong, she would just tell us to try again and we’ll just keep doing it until we got it correct.

JAMIE: What did that teach you?

GLENN: To never give up... if you fail at doing something. Just try again, and don’t give up. Like if you are, if you are trying to do a math problem and you can’t figure it out, you have to keep trying again and not give up.

The Pomaika‘i student participants indicated ability to persevere through artistic and academic problems independently but also ask for help from peers and adults when they needed support. Theo’s teacher saw his resilience in academics as well as in social and behavioral realms:

If we have class meetings and there’s like a problem that’s arising in the class or the grade level or whatever recess, he’s always listening. He listens anyway, but he listens to those kinds of conversations, like impeccably, like he is right there with me. He takes what I say to heart. He takes the classes to heart, and he changes. If he needs to tweak his behavior and go out of his way to do it, he will.

The Pomaika‘i students in this study seemed to carry a certain faith in their abilities to squarely face issues, solve problems, and overcome challenges.

The contribution of the arts to the development of persistence lies in an ethos of embracing mistakes as opportunities and failures as possibilities. Brittany told of how she started elementary school feeling shy and nervous:

I was kind of scared that I'd probably mess up or something, because when I feel scared, I would hyperventilate sometimes. I'd just be like, 'Oh my god,' and I will freak out because – I don't don't know...

Through arts lessons, Brittany noticed how all her peers were looking “silly” and imperfectly executing their work in rehearsal, and felt less alone when she “messed up.” Teachers did not criticize her mistakes, nor dwell on them, but encouraged her to keep working until the kinks were out. She learned how to laugh when her group made mistakes and eventually became quite comfortable with a trial and error approach to learning. Charlie, a student who is more apt to keep his ideas to himself than take the risk of being wrong, found the shared experiences in the arts helped him laugh at himself:

It makes me laugh more, actually. We all laugh at people, and they laugh at us, and we laugh at ourselves. It's all funny. You don't do that out on the street.

Taylor's mom also noticed how learning through the arts helped her child take mistakes in stride:

I think they did a lot of dancing and singing, and how they act things out, I think it makes them not serious in the classroom [laughter]. They have time to be silly.

They get to know each other better. They're not the only ones if they make a mistake.

Looking “silly” often arose in discussions with the participants of this study, who suggested that opportunities to “look silly” among their peers actually helped them to

develop a mindset for taking risks and embracing mistakes. A middle school teacher observed how this transfers for the Pomaika‘i graduates she teaches:

I would say we found—because I have several teachers that have kids that go to Pomaika‘i that teach with me—that they are less afraid to make mistakes. They become more risk-takers and more creative.

This is not to say these students are free from anxiety, stress and pressure. Their lives do offer them ample opportunity to worry – about homework, grades, friends, and family life. On the Social and Emotional Well Being Survey, the item with the lowest ratings across all participants was, “Does not easily stress out.” The second lowest ratings belonged to the items stating, “Does not easily feel down or depressed.” Comments about each student’s drive were at times accompanied with observations about apprehensions and self-criticism. Perseverance is a powerful and necessary component of resilience when ambitious young learners face these challenges.

Belonging. Research suggests students who feel they belong within their classroom or school community – accepted, respected, and included – benefit psychologically and academically as they invest more in themselves and in their learning (Farrington et al., 2012). A sense of belonging is related to socio-cultural factors as well as self-esteem and physiological conditions, and case studies show a sense of belonging is directly related to school dropout (Ma, 2003). In this study, the item in the Social and Emotional Well Being Survey that came in third highest when averaged among participants was “I feel like I belong in school.”

Pomaika‘i’s approach to the arts is very much an ensemble model, in contrast to a “star” model more common in some arts conservatory or magnet schools. Pomaika‘i

school does not place children into competition with each other, compare their skills, or attempt to foster the talents of an elite few. Even when there are main characters and star roles in performance projects, they cast several actors to trade off the role, rather than putting a solo child in the spotlight. This emphasis on the ensemble seems to have created an environment where students feel “safe” and it is this sense of safety in numbers that characterizes belonging at Pomaika‘i. The participants in this study use the word “safe” to describe ways students are embraced and protected by the whole, never isolated or made to feel “awkward” in their academic endeavors. Marco almost metaphorically defines it: “Usually I don’t like singing. But when you have a group behind you, it just gives you more, ‘Oh, okay.’ My voice is blending, so I don’t need to worry.”

The collaborative nature of the arts in the classroom helped Taylor feel supported by a community of learners: “Like we got to work a lot with groups. So yeah, it just – they’re all my friends, so like it made it really like natural and made me feel comfortable.” The school created a space in which students felt calm, connected, and confident. Marco kept telling me he “loved” Pomaika‘i Elementary School because it was “awesome,” and when I asked him to explain, he responded, “They’re my -- I guess my calabash cousins in a way. It was kind of like my different family, I suppose.”

Parents of Pomaika‘i graduates, many of whom had experienced other elementary school settings attended by their children, contrasted that prior experience by characterizing Pomaika‘i’s learning environment as “safe.”

Even from the beginning, the tone that was set, I felt more that he was safe there. Just the kind of attitude even the kids take, you know. I guess because of that teamwork thing, like they’ve got to do this. They’ve got to learn how to work

together from the beginning. It's a lot of the arts integration, like, "Okay, we're doing this. How are we going to?"

A Pomaika'i teacher described her impressions for the significance of safety in her classroom:

So just being able to be safe and comfortable and feel more accepted by their peers than maybe they would in another school, I think would contribute to their learning greatly, because I think that's the foundation in the classroom... And also, because we do so many things together, it's no longer the child in isolation listening to the teachers. It's so much of group work and pair sharing and speaking to each other and listening to each other. If they didn't feel comfortable taking the risk, all those things wouldn't be possible.

Through ensemble work, students self-generate inclusion and support, and a connected community.

The many performance opportunities the children engaged in at Pomaika'i also gave them opportunity for recognition among their peers. The study's participants fondly remember May Ho'ike, an annual event when each class performs for the entire school, families, and community. Marco expressed pride when he received accolades from his older peers:

They're like, 'Hey! You're the narrator.' And even the fourth graders, when I was in third grade, they're like, 'Oh, I know you. You're Marco.' They all knew from narrating. I was like, 'Oh! How did this happen?'

Brittany had a similar experience: "I remember the kindergarteners telling me that while I was dancing in fifth grade for Ho'ike 'I like that one.' I'm just like, 'Oh, wow!'"

Younger children look up to the older ones, and older children encourage the younger ones. In this manner, the school supports school-wide cohesion and belonging beyond the classroom and the grade level boundaries.

Intrinsic Value. Reflecting on the value of Pomaika‘i’s arts integrated model, Brittany’s mother said:

It’s kind of fun, actually. The kids have fun learning. I guess that’s what arts integration does. It makes it fun for learning. It’s not like when we went to school. My kids love school.

In order to do well in school, a student must perceive value in its tasks, and see them as purposeful, relevant, and meaningful. When these things are present, a learner experiences intrinsic value. In this study, that value appears to be quite similar to a simpler concept – fun. Thoughtful educators struggle with the word “fun,” often considered antithetical to the hard work of education. However, intrinsic motivation is fueled when students experience joy with purpose, structure with choice, energy with control (Egan, 1999; Smyth & Fasoli, 2007; Stinson, 1997). When students are deeply involved in activity that is simultaneously challenging and delightful, they experience flow, and the hard work of learning inevitably becomes fun (Bond & Stinson, 2007; Csikszentmihalyi, 1975). This theory is evident in the way Theo’s teacher described him:

He’s just such a good kid that anything you give him as a task or an activity, he does, he participates in wholeheartedly. So whether it’s art, visual art, drama, or dance, it’s like okay, let’s go create a dance. “Okay, let’s go do it,” and he’s fully engaged [laughter]. Let’s go do this tableau. Okay, he’s fully engaged. He’s just

fully engaged. He just, I think, really enjoys people and learning and being at school, and that comes through in the arts, as does everything else.

The students who participated in this study expressed enjoyment for learning through the arts and also believed this joy transferred into learning. They did not all share the same understanding for how this intrinsic value has shaped their educational experience, but some had clear ideas about the relationship. For example, some children simply felt more engaged when the arts were present in the classroom. Even Charlie, though more reserved than many of the other participants, discussed how he felt learning through the arts:

CHARLIE: Yeah. And, it's more fun.

JAMIE: You said it's more fun. Do you think fun helps you learn?

CHARLIE: Yeah, a lot, because some kids get super bored. Sometimes, I do that, like almost zone out, because it's usually just drawing, drawing on and talking and talking.

JAMIE: But when you're having fun...

CHARLIE: Yeah, you get up in your seat and you can laugh, because some kids are twisting so much. And yeah, it's funny.

Having a break from the monotonous school routine supported Charlie's attention; the arts stimulated him into becoming wide-awake as an active participant in his own learning. Similarly, Theo found a way to relate to his least favorite subject through song:

I used to not really like math and then we started doing these songs and they helped me feel different about math like I really like it. It's fun and easier now and enjoyable.

Theo also learned the 50 states from songs, and from that developed an interest in the geography and culture of each. Finally, Marco suggested that he learned to love reading through his dramatic interpretations of character voices:

I guess sometimes I would put on different accents, I guess kind of just joke around and be silly when I was younger. I'd put on different voices for the characters. I guess that kind of influenced me too to have fun reading.

For all of these students, learning across content areas was more like playing and came easier as a result. Charlie aptly summed it up: "It's pretty cool to learn while playing. You don't have to write and get a sore hand."

Through the eyes of one teacher, Pomaika'i students on the whole "enjoy coming to school, and have enthusiasm for learning." Although such reports create a beatific impression of children skipping to school with anticipation for learning, she admits to struggling with their ability to focus on a given task:

I think it comes from joy. You know what I mean? I think they're totally more comfortable with the people they're around and the school that they're in, so they're more joyous and they're more silly and they're more playful, and it's more who they are. So that does interfere with their focus, but I don't think it's necessarily a bad thing. It's just how it is.

Other teachers noticed how playful Pokaikai graduates are too, but prefer that to the alternative, "That's better than being sulky and melancholy all the time, you know." One of the Pomaika'i teachers I spoke with had recently transferred from a different school and was initially skeptical about the role of the arts in learning. For a year she dabbled in

tableaux, a drama strategy engaging students in physical imagery, and came to new conclusion:

It definitely brought more students into the teaching—involvement, engaged, more engaged in learning. So I definitely see the need for incorporating the arts in schools, I think it really does bring more engagement with the students.

Parents agreed with this assessment, noticing the enthusiasm their children demonstrated for learning at Pomaika‘i, contrasting that with their own experiences in grade schools, and recognizing ways in which “fun” does indeed contribute to the educational experience of their children.

Learning Strategies

Students can leverage or maximize their learning by practicing effective learning strategies, or methods to support remembering, understanding, and problem solving (Farrington et al., 2012). Some learning strategies seem quite obvious in the way they improve student achievement, for example attending class, doing homework, managing time, and seeking help are all clearly healthy habits. In addition to these basic study skills, learning strategies include metacognitive awareness and a sense of control over how learners arrive at cognition. Students from Pomaika‘i concluded that they learn best when they learn a variety of content through a variety of strategies including the arts, that visualizing content through the arts helps them both understand and retain information, and that learning through the arts has helped them become creative problem solvers.

Variety. Charlie worked on a coral reef project in the second grade, a 30-second public service announcement incorporating research, watercolor images the students had painted, narration, and video. When his family came to a community event at the school

called “The Artist in Me” and saw what Charlie had created they were “blown away” by the variety of learning that was incorporated in that single project: “That was scientific, that was research, it was art, it was technology.” The participants in this study expressed an appreciation for how learning many different things in many different ways enhanced student experience, engagement, and comprehension of school material, views consistent with Multiple Intelligence Theory (Gardner, 1990), Universal Design for Learning (Hall, Meyer, & Rose, 2012) and Differentiated Learning (Tomlinson & McTighe, 2006).

The families communicated a strong appreciation for way the arts created opportunities to learn through different modalities, especially kinesthetically. One parent, who is also a teacher, said, “They do it with the mind, but also with their bodies.” Brittany’s mother similarly expressed an appreciation for the way the arts meet the diverse learning needs of students: “It doesn’t matter what style of learning this child has, but through the arts, they all grasp it. That’s what I feel and I see.” Corrine’s mother explained her idea of how the arts are a great equalizer for learners with different dispositions:

When I think of that, I think of if I look at art in general, whether it’s dancing, you know, any set type of art, the kids are on an even playing field when you think about it, right? If you have the shy kinds and you have the outgoing kids, and if it wasn’t for art, the shy kids will always be the shy kids, you know, not seen much or participating. I think it gives them more self-confidence, you know.

Learning experiences that include the arts extend to more than one dominant type of academically oriented learner with typical proficiencies, and provides options for

learning that can both challenge and lend advantage to a range of learners within a diverse classroom setting. Theo's mother felt this was especially true for him:

I think it gives him a place to shine. Honestly, I think he shines in the arts, and I think that helps him enjoy school. I think it helps him enjoy knowing that he has that ability within himself. He loves to dance, so he shines when we're in dance class. Like I said, it just gives his personality a place to excel.

Charlie provided additional insight into how this transpires:

Sometimes they do different strategies. If a couple kids get this strategy, she would teach that, and then, after that, she'll go into an easier, or more complicated strategy so that other kids will learn. There's always at least two strategies to do something... To help the kids understand better, and – I don't really know. Just to help the kids understand better, help them learn.

Participants like Charlie could see how their teachers incorporated the arts as tools to teach different children differently. To extend the metaphor further, a tool belt includes a variety of instruments to meet the specific need of a job; one cannot build a house with a hammer alone. A variety of teaching and learning strategies help to meet the specific needs of diverse learners and learning objectives.

Incorporating the arts also provided additional content for classroom learning, and students felt they not only learned through the arts, but also new skills and knowledge within the disciplines of dance, drama, music, and visual art. Corrine observed:

It feels good, because since there's art, there's different things that's going on in school instead of the regular subjects like math, reading, and all those. Since

there's art, there's more things to do, and it's more fun because you can go to different classes and learn different things.

When Pomaika'i was first opening, several parents were initially quite nervous about enrolling their children there because they feared the arts content and processes would overshadow, replace or compete with the standard academic education that would help prepare their children for the future. When the school first opened, parent and community impressions were not completely positive:

At first, we couldn't quite put together the art and the school.

I mean, we live in the district, but we could have moved out. And when the school was starting, we were advised by a lot of educators to go get a [Geographic Exception] to move out.

I wasn't quite sure because I wanted to make sure that they got the standards. I wanted to make sure that they got the basics down and incorporated the arts into it instead of just being an arts school and not having the solid standards-based learning. It was a concern to me.

In the beginning when we first came to this school – I have friends that are school teachers at the other elementary schools, and they're like, "I don't know about that school." It was a new idea. It was a new concept that nobody accepted, and at that point, I'm like, "What? Really?"

These misgivings about the approach faded as parents' paradigms shifted. They began to perceive the presence of the arts in the curriculum as added value and variety for learning. Today, parents continue to demand rigor in the classroom, and to them, the arts integration at Pomaika'i has enhanced not detracted from that rigor. Joshua's mother, who is also a teacher, explained:

It wasn't overly done, I thought. I thought it was good because it really had a strong foundation of the learning part. They did a lot of researching, reading and talking, discussions, and then bringing the arts in. I just thought he got a lot out of it. He learned the most that way.

Visualization. According to dual coding theory, humans generate both mental images and verbal codes to represent information in their memories for storage, use, and retrieval (Sadoski & Paivio, 2001, 2007). People think in terms of symbols, such as words and numbers, as well as through scenes and emotions, and a bridge between visualization and verbal articulation aids in the formation of meaning. Pomaika'i students were vociferous about how the arts helped them to visualize what they were learning, and that in turn helped them better understand.

Visualization could occur in the mind's eye, re-enactment, or modeling. For example, Theo created images in his mind to help him with mathematical operations:

I will do little drawings in my head filled with math. If I'm doing adding, I think of this little vortex thing and then two numbers and then they're going in and then they pop out the other side and then, it's a different number. Four and two, they go inside the vortex and then pop out and it's a six.

Brittany's visualization strategy involved more spatial relationships and patterning:

Because sometimes I can draw stuff in my head to see what they would look like. If I had to see -- my teacher in Math said something about cubes and stuff, I can picture the cubes in my head and how much there are, probably.

Charlie used visualization to help him remember:

When we have HSA sometimes. I remember how to use a different strategy, like A times base times height, something like that, and make a drawing out of it so you'll remember it. I can draw that drawing, and I remember what to do. It helps.

These students all used visualization to solve mathematical problems differently, but all three attribute this ability to their learning in the visual arts. As Marco puts it, 'Math is like drawing, except with numbers!'

Dance and drama offer a slightly different way to go about visualization when students use their bodies to represent scenarios, concepts or to model systems. Brittany explained, "When you have to act out, you can see in your head pretty much." Taylor provided detail with an example to explain her experience modeling the movements of the solar system through dance:

In fifth grade, I think it was, we're studying like the solar system and like how the planets orbit, so like we like had to do like a dance about like the solar system. So like one person was like the sun, and then like we're all like spinning around the sun or -- yeah, stuff like that, and then it kind of helped me understand it better. So it sorta like helps you visualize.

Charlie also commented on his experience learning about the solar system through dance:

It can help you learn to remember stuff. If you want to remember the world, like its axis is not straight, we did a dance that we tipped sideways and we turned around so we can remember that better. So when you want to remember the earth axis is not straight, it's easier to remember and just drilling that, "Earth axis not straight," like that.

Taylor's comment was mostly about understanding and Charlie's was about remembering. Other students mentioned learning about science processes such as the rain cycle and the digestive system in the same manner, using the arts to connect parts to a whole, make the abstract concrete, and develop an impression to help them remember long after they walked out of the classroom door.

Drama added one more dimension to the strategy of visualization; in addition to quite literally seeing settings, themes, conflicts, and resolutions, students evoked the feelings of how characters or historical figures ~~my~~ have felt through emotional visualization. Theo explains, "when you're doing drama, you really feel the character. Like if we were doing slavery, we would really feel how a slave felt." Although Theo had difficulty articulating how reproducing these feelings helped him to learn, his mother provided her impression of her son's experience:

So I think that making kids, students internalize how the forefathers did what they did, decide what they have decided, did at that time, or even normal people at that time, it's more meaningful to them, and they understand it.

Generating empathy provides students with something concrete to which they can connect to, better understand the motivations and actions, and see the relevance for themselves in their own ~~live~~. Charlie provided an alternative analysis for how generating

emotional imagery helped him learn: “In a different way, like you get emotions. It’s like muscle memory, almost. When you do that, you remember the things that you were taught.” Other students in the study commented on how experiencing reading, math, history, and science through the arts helped them remember content better. As Marco said, “it sticks with you” through a more pleasurable process than rote memorization.

Creative Problem Solving. Parent participants in this study are concerned about what it means to “succeed” in tomorrow’s work force, and how that might look very different from the world in which they were raised to compete. Charlie’s dad explained:

I’m a believer that going forward in this world, it’s going to incorporate -- when I was growing up, it’s so left-brained emphasis. Be it doctor, be it lawyer, analyze, analyze, right? And I really think going forward that it’s going to be successful, it’s going to be right-brained; because left-brained, you can get a computer do it or you can get someone in India to do it for five bucks an hour. In order for a society, for us to be successful, it’s going to take right-brained thinking, out-of-the-box-approached creation design. And I think that... I don't have evidence of it, but I do think that Charlie has more of that than I did.

Similarly, Joshua’s mother sees the value of creativity within the broader context of life and work:

I think it develops their... it makes them think outside of the box. It makes them see that there are different ways to get to what you need to do. In life, in your job, being creative I think is important—trying to figure things out, find the best way, that type of thing. I think it is important to encourage kids to be creative and to think outside the box...I think people, when they hire others, they’re going to

look for people who aren't afraid to take risks and try new things. I think that's how you can get ahead. Whether you're selling a car or whatever you're doing, it's important to be creative.

Creativity is a tricky concept to define, teach, and measure (Makel, 2009; Reynolds, 2012; Saunders, 2012). Participants in this study mentioned creativity frequently as a major benefit to the Pomaika'i arts integrated approach to education. Most often, they connected creativity with problem solving, or ability to combine ideas to construct a new way of interpreting a need or prompt.

What does creative problem solving look like at Pomaika'i? According to Marco's mother, the school fosters creative problem solving by structuring learning around open-ended prompts in which students "are not told how to do something. There's no right or wrong." Parents want their children to be able deal with problems further up the ladder on Bloom's taxonomy, deal with ambiguity, and handle the unknown. Brittany's mother was emphatic about the value of this kind of thinking:

So I think it impacted her in that way where there are answers in math that are black and white, but there are other answers where there may be one particular answer they're looking for, but then I guess she can be creative in coming up with something else... It's not just this is the right answer and that's it. They allow them to give their answers, right or wrong.

Creative problem solving at Pomaika'i also comes with an emphasis on ideas that come from the student, not parroted from an outside source, or replicated in a neat package. Joshua's mom says, "They're creative. They will pick up what to do, and they come up with their own ideas. You don't have to push after that because they will just

jump in.” His teacher noticed how Joshua’s creativity was contagious in her Language Arts classroom, as ~~that~~ he led an initiative to re-write the literature they had been reading:

They join in when they want to change the ending and stuff. They’re all like, “Yeah, we could do it. Yeah!” They’re all jumping in on what he sees. That’s why I think it’s a positive. For a teacher, I appreciate that because that’s thinking outside of the box. Many of the kids need to think outside of the box.

In their artwork, writing, and even in definitions of vocabulary words, I see evidence of “out of the box” thinking from the Pomaika‘i graduates. Parents see evidence of creativity in the way students communicate, approach projects at home, and even in ~~they~~ ways ~~the~~ interact with their friends. The students themselves see themselves as creative beings capable of approaching problems with multiple solutions.

Problem solving and creativity also evolve from the emphasis Pomaiki places on collaborative generation. This is a more complicated form of teamwork than what one might see when students read together, share their experiences in partners, or review for a test in small groups. Creating in collaboration with others requires young people to offer their own ideas and accept the ideas of others, and negotiate between them without interference from the ego. Students commented on how this process helped them develop stronger ideas than if they had worked alone. Theo said, “We usually like think with each other, what would be the best choice, or we kind of like mix it up together,” and Corrine confessed, “I feel good working with them, because then you would know what they’re thinking about the project and maybe of different ideas to add into the project and not just one.” Participants recognized how many voices and ideas can combine to develop surprisingly novel products.

Social Skills

“Community oriented and collaborative” – this is how one Pomaika‘i teacher characterized Pomaika‘i students. Taylor suggested, “I’m not sure how to explain it. It’s just now it’s easier to work with groups and to like ask teachers for help and just be more outspoken, not shy” and Brittany said, “It taught us how to connect to others.” Their peers felt similarly, that the arts helped them be more outgoing, socially confident, and able to form lasting friendships.

Evidence indicates positive social skills developed at the elementary level increase academic performance because students engage productively in learning activities (Farrington et al., 2012; Lipnevich & Roberts, 2011). Causal effects are difficult to prove because they overlap extensively with other noncognitive factors, and social-emotional well being, school environment, and teacher practices likely corroborate to impact positive behaviors (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Arts research supports the performance experience as a catalyst for collaboration and teamwork as unity develops among children who invest in the success of their group (Sullivan, 2003). Interpersonal relationships were a large part of my conversations with the participants of this study, who had an overwhelming impression that learning through the arts helps elementary students develop self-confidence, connect with each other and with their teachers, and communicate well.

Confidence. The participants of this study made passionate, articulate, frequent commentary regarding the Pomaika‘i students’ demonstrations of confidence, and a synthesis of their ideas points to a range of ways arts integration contributed to that confidence. Brittany remarked:

I would say it influenced me because it helped me come out of my shell a little bit, because like with the drama, we had to interact and stuff. Yeah, I used to be shy, but now I'm not too shy anymore because of the interaction we did a lot in the school.

Similar comments were often echoed by the other students, parents and teachers who spoke about various ways students had come “out of their shells.” Due to their arts rich educational experiences, Pomaika‘i students are self-assured when communicating with an audience, likely to try engaging in activities out of their comfort zones, and able to feel successful in their learning.


The performing arts teach Pomaika‘i students how to embrace the limelight. Joshua’s mother surmised, “just the way he just speaks out and not afraid to be looked at as somebody who’s just -- I don’t know. He’s not afraid. He takes a lot of risks when he speaks out.” This echoes throughout the parent interviews from amazed mothers and fathers when they witnessed a fearless stage presence they attribute to learning through the arts. Taylor’s mom characterizes her daughter’s education as “a great experience that really opened her up. She’s not afraid. She’s outgoing, outspoken, not afraid to perform in front of a group or people.” Such confidence is observable from both those who are both socially confident and those who are less so; Glenn, one of the more reserved contributors to this study, revealed a different side to himself according to his mother’s story:

I think he's more confident from doing all this drama stuff. I remember a couple of years ago where we had a New Year's party at my mom's house, and he put on

a dance performance. I couldn't believe it. Yeah, with his cousin, in front of all the relatives and stuff, I was like "Oh, my God. I can't believe he did that." Every parents in this study marveled at the abilities of their children to willingly put themselves in front of an audience to express themselves without shame.

Teachers also notice the presence of confidence and the way students behave in the classroom. When I asked a Maui Waena middle school if she noticed any differences between Pomaika'i students and their counterparts in other feeder schools, she responded:

I think they're, in general very bright and very open. They are more relaxed in my class. You can tell they're from Pomaika'i, because they're sitting down with their leg up, and –they're very confident. Not that the other kids are not, from other schools. But if you put the confidence, and they're relaxed, and just their demeanor is friendlier, too. They may be a little friendlier. Like I said, it's not like the other schools don't have that, but you can just tell. You can just tell. This cool demeanor is an indicator of self-confidence, and that seemed to open the children up to helping them easily connect with their new peers when they entered middle school.

I was surprised to hear almost every teacher involved in this study describe the young key participants as leaders, sharing the variety of ways students take initiative or provide assistance to peers. For example, Theo often organizes activities and vocalizes instructions among his peer group rrine and Taylor are quick to assist friends with their academic work, Brittany and Joshua eagerly plan and direct special events at school. Marco's Science teacher also noticed this in the way Pomaika'i students eagerly volunteer to speak or present:

They're not afraid at all to do something in public presentation, any kind of presentation. I'll give an example with Marco. We were going to talk -- so, we're talking about the gravity on the earth and the moon, one-sixth gravity at the moon, and we were defying gravity. And he volunteered and he's thrown up in the air.

And the second time, he says no, he wanted to touch the ceiling.

Improvised or rehearsed, daring demonstrations such as these are not uncommon for the Pomaika'i graduates in this study. In a subtle interpretation for how confidence can lead to student success, one Math teacher articulated it as a mindset that he observed in his Pomaika'i graduates:

Yeah, I think confidence has a lot to do. Whatever the mind sees, most of the time, the kids perceive it that way so they will perform to that ability, yeah.

Such a remark is consistent with Bandura and Schunk's (1981) theories of self-efficacy – when students have confidence that they are successful in school, ~~then~~ they are .

Connection. By frequently working on projects and performances in collaborative groups, students learn how to interact with a full range of students who were both similar and dissimilar to those with whom they might naturally associate.

Marco explained:

I would learn how to cooperate, work with others very well. Because trust me, when the group thing, where you would do whatever the claps, and then you would try and find a group, if there's some kid that you don't really hang out with or maybe you're not friends with, you don't care, you just try and work and get in a group, do whatever, just set your differences aside and just learn to work with them. And I guess you make friends that way, too.

“The claps” that Marco refers to is an arts strategy for creating groups. While the teacher is clapping, students move randomly around the room, demonstrating spatial awareness and physical control. When the teacher calls out a number, the student must quickly find and physically connect with that same number of students. The goal of forming the group is more important than who is actually in the group, and students need each other to meet the challenge. Now in middle school, Marco’s Science teacher noticed how [still](#) connects with others; “He can get along with introverted or extroverted. He can get along with rascal kind of kids as well as focused kids.” Another middle school teacher who has children who attend Pomaika‘i said, “They know that I need to include you on my team. We need to do this as a team.” Brittany’s Math teacher could see this characteristic in her as well:

Even those people that may not be like her or are not her type of people, she just accepts them for what they are. I haven’t seen her treat them any differently. She treats everybody the same way.

Arts experiences at Pomaika‘i create an environment of constant contact and goal-oriented collaboration, so rather than resist by turning up their noses to others, the students learn to accept and even embraced others regardless of their diverse characteristics in order to get the job done. Indeed, the second highest rating on the Social and Emotional Well Being Survey for all participants in this study reads, “I get along with classmates, including those who are different.”

Another dynamic benefitting student connections evolved out of the sense that the child is encouraged to be themselves and speak their minds at Pomaika‘i – to fully engage in understanding and expressing the self as a part of the process of forming

authentic relationships with peers. In a study interpreting how intermediate school children experience engagement in dance class at school, Stinson (1997) explored a connection between self-expression and self-esteem. Her young participants explain how their dance creates an opportunity to be “who you really are to yourself” (p. 59), a chance to learn about and show others your true colors. At Pomaiki, students engage in a range of arts experiences, from dance to portraiture, with a focus on understanding identity. Corrine felt such experiences helped her get to know her peers: “If someone is shy and maybe new, if there’s art, they can show what they feel. And then, now, people would know more about them.” The inclusive community of Pomaika‘i encouraged Taylor’s self-expression:

I like learned what it means to not be ashamed for like, what you have to say.

Everyone there was like way understanding. There was no judgment about how you solved your problems.

When examining the juxtaposition of Corrine’s comment with Taylor’s comment, a self-generating cycle emerges; in learning about each other students form bonds of trust, which in turn encourages the students to further express themselves. Again, this seems to work well for students with a variety of dispositions. Joshua felt he had permission to be himself in that environment:

JOSHUA: I’m shy usually, but the arts have taught me be more outgoing and more confident and social.

JAMIE: How did they do that?

JOSHUA: Because it showed other people that you can be who ever you want.

This contrasts with Marco's already outgoing disposition:

I like how the school kinda showed me how to make friends, a lot of friends.

Almost all the boys, and every one of my classmates... And I appreciated all of them. They appreciate who you are. And it's like, "Hi I'm Marco!"

Both the more socially restrained student, Joshua, and the more socially confident student, Marco, felt safe enough to be themselves, and this helped them both reach out to others and develop a strong sense of personal identity. Like Joshua, Charlie is a "shy guy," and his father analyzed how the school ~~might have~~ encouraged his ability to introduce himself to someone, or interact with other children:

I think that the learning environment of Pomaika'i does bring that out, because you are putting yourself out there as a student in the class. But you're not the only one. Everyone has to. And I think, because of that, it's helped him develop socially.

The same expectations to be actively learning through the arts applies to all students, so those who are nervous about being wrong or standing out find themselves in good company.

Student-teacher relationships are also very strong at Pomaika'i. The item with the highest ratings across all participants reads, "I get along with teachers." Taylor found intrinsic value in the way her teachers interacted with students:

[The teachers] were like really nice. They're like my friends too, not just my teachers, and they were really like funny and they made me laugh. They just made school more fun.

The students perceive teachers as “friends” because of the way they engage, share humor, or even participate by dancing along when a guest teaching artist is leading the class. When teachers taught creatively and through strategies the students felt were “fun,” student felt respected as learners. Of course, students recognized the many ways teachers connected with them that were not necessarily arts oriented: helping them with problems, guiding them to understand new concepts, challenging them to improve, and encouraging them with morning “high-fives.” Overall the teachers clearly create an inviting, non-judgmental environment through a variety of tactics, the arts being one of them. Parents noticed this:

I have to say I was very pleased more with—specifically to Pomaika‘i and the teachers that were there—just their positive, just how positive they were with the kids, I think for both of my kids, even more than I think the arts integration. That encouraging, that loving, all their teachers were that way. I mean, to a different degree—some are stricter than others—but really just super encouraging effects of the arts experiences seems to have created a unique bond.

Joshua’s mother recognized the way the teachers “bond” with the children through arts experiences, and how the arts provide opportunities for positive interactions between teachers and students. Brittany’s mother characterizes the bonding as “gelling” and suggested that it is through teacher preparation and training in arts integration that relationships form:

They really support each other and work together. Their focus is the students and the learning. Every grade level that my children have been in, I noticed they’re very cohesive. All the teachers, they’re very close, and it shows in what they

produce and what they do for the children. For instance, when we had Furlough Fridays, when that started, our school was the first school, even the only school that I've heard about the teachers voted to give back one of their non-instruction days to the kids because the kids are losing so many days for those Furlough Fridays. I literally cried. I went to one of their meetings and I said, "Oh my God, I can't believe that you guys embrace and love our children so much that you would give back one of your days to the kids." I thought that was amazing. Like I said, they are very gelled and they're supportive, and they really do care about the kids here. I don't know if arts integration has something to do with it, but they do all this training together, it's a new style of teaching. They have one of the best schools here.

This long excerpt says a great deal about the teachers and their relationships with the students at Pomaika'i. Brittany's mother just hints at the idea that when teachers bond through their own arts experiences, the cohesion and relationship they form together spills over into the relationships they form with the students, which in turn spill over into the relationships students are able to form with each other. This is an exciting proposition for constructing a strong community of learners.

The students in this study described their peers as "honest" and "kind." They described themselves as "happy" and "caring." Their teachers describe them as "fair," "thoughtful" and "accepting of others." I was touched to hear stories about various ways they demonstrated love for their families and responsibility for the well-being of their friends. These children genuinely like other people. Teacher observations illustrated this point. One Pomaika'i teacher said:

I think Pomaika'i kids are generally kinder to one another. I think there's a culture here of acceptance. Of course things happen, and kids' feelings get hurt. I think that's part of growing up and learning and growing. But in general, I think the kids are much more accepting of one another here and much kinder to one another than I've seen in other schools, in a very significant way.

Another Maui Waena teacher agreed:

Even the compassion, I think, for other kids. I see that. With the Pomaika'i kids, I don't have a lot of problems with them teasing other kids. They want to help. The Pomaika'i curriculum requires students to walk in the shoes of others, for example, I saw evidence of empathy in their written responses after lessons in which they danced with the perspectives of an African American slave. This aspect of arts education combines with several others I have previously discussed to nurture compassion. It is likely that the process of creating art, the content within the art, the encouragement of teachers who are creative practitioners, and an inclusive environment in which students are regularly expected to engage with each other in creative endeavors all lend support to the development of compassion.

Communication. Part of social navigation includes the skill of communicating across social situations and contexts. This study reveals ways in which the teachers especially observed communication strengths in Pomaiki students. One variety of communication includes the sense of what it means to be “outspoken” or “speak one's mind” and another aspect of communication is related to articulate oneself well in front of an audience. Pomaika'i offered ample opportunities for students to speak publicly, from the May Ho'ike performances to the PR student committee that engaged with

visitors to the school. Students delivered morning announcements and orally presented class projects. They received drama instruction in verbal expression and also spent a great deal of time learning by talking to each other. A Pomaika'i teacher who had been a teacher at another school for over a decade noticed:

They're able to share. I want to say Pomaika'i students are able to more verbally express their thoughts and feelings, are more open with those things, I would say, than my Makai Elementary students were. And the conversations that I hear when they're doing the arts is more of a rich conversation, more staying on task, I would say, on what needs to be accomplished within that time.

Another Pomaika'i teacher also sees this as a contrast from her prior teaching experiences:

I think the kids here can articulate their thoughts more clearly and are more comfortable with critical thinking in the sense of if I ask them what makes you say that, why do you think that, or can you explain, why don't you think this, most of the time, they're comfortable being able to say that. When I talk to other kids, they do the shoulder shrug. "I don't know." Why does that make you happy? "I don't know, it just does." I feel like they've become more comfortable with that kind of probing here.

Maui Waena Middle School teachers see the same thing when Pomaika'i graduates come to them.


More so when we do oral stuff, I can see that -- because they work in groups a lot in my class... Automatically, even when they communicate, how they speak and

they -- whatever they worked on that day and they have to report out, I really like the way they use their voice and just their sharing.

Pomaika'i students and parents also feel the arts integrated experiences and curriculum have benefitted student communication. While this may have had some relationship with explicit instruction in oration, such as technical skills for annunciation or projection, the details the teachers provided lead to the conclusion that student communication is enhanced by the collaborative nature of the arts experiences, the inclusive relationships between members of the community, and value placed on open-ended expression of independent thought.

Conclusion

Summary of Findings

Students, parents, and teachers described their experiences at Pomaika'i with glowing support. They felt the arts integrated approach to education was valuable, and added a dimension to school and learning students might  otherwise have had.

Participants' interpretations of those experiences highlight the potential power of noncognitive factors in preparing students for their academic futures. The arts contribute to the academic mindsets of the students who developed drive with traits of mastery and persistence, a sense of belonging, and intrinsic value for learning. Participants also perceived ways in which the arts helped them develop strategies for learning such as variety, visualization, and creative problem solving. Finally, Pomaika'i Elementary Schools vision to educate the whole child through the arts created opportunities for the individual to develop self confidence and communication skills, and for the community to connect through compassion.

Future Research

This study scratches the surface of what we understand to be the unique contributions of the arts in education. For many years, researchers and policy drivers have been attempting to explain relationships between test scores and arts instruction, but, unable to control variables or support causal relationships, have fallen short. It is my personal belief and experience that the arts do not exist as a function of humanity to bolster cognitive aptitudes in other subject areas. Although I am a passionate advocate for arts integration, I believe that if we spend our time focusing on preparing children to take tests through the arts, we are wasting valuable school time and squandering the tremendous potential of the arts. Noncognitive factors present one alternative avenue for examining arts education, and further research in a variety of contexts would certainly add evidence to the claims within this paper. In addition, Pomaika'i is in its infancy as an institution, and longitudinal inquiry over time may verify or debunk many of these assertions. For example, in four years when Glenn, Marco, Joshua, Taylor, Brittany, Charlie, Corrine, and Theo prepare for transition to high school, how will they look back on their elementary education? How prepared will they be to face the new demands of secondary school? As the school, its philosophy, faculty, and students evolve it would be a worthy endeavor to continue to ask questions about how the arts are influencing learning.

Implications

Pomaika'i is facing tremendous change at the district, complex and school levels. Parents are already noticing changes and anticipate more. They hope for consistently qualified teachers who are well trained and competent in arts integration, able to rigorously guide students to reach standards through acts of creativity; they hope for continued options and opportunities to engage in the arts both during school and afterschool; and they hope for a principal who will continue to inspire and support the vision of the school that has nurtured their children so well.

This report may contribute to those hopes by supporting an evolving understanding of the arts in education for the faculty, administration and the community. It may also provide focus and purpose for arts integrated lessons in a curriculum that embraces noncognitive factors among its stated learning objectives. Finally this study may contribute to the definition of what it means to teach the “whole child,” supplementing the vision of the school with a foundation of evidence to support its goals.

Appendix: Instruments and Protocols

Student Focus Group Protocol

Location: Pomaika'i Elementary School

Time: 60 min.

Materials: pizza, apple juice, video camera, chart paper, markers, values labels, tape

1. Round Robin Names (5 min.)

2. Introductory Remarks (5 min.)

The study's goals, consent and assent will have been addressed in an informational meeting prior to this focus group. The facilitator will ensure participants are aware the session is being videotaped, but the video will not be shared with anyone at any time and will be destroyed when the study is done, remind students of their rights, provide an overview of the goals for the focus group, and remind students of the confidentiality of the focus group.

3. Word & Gesture (5 min.)

All participants stand in circle. Introduce yourself with ~~you're~~ an adjective that describes who you are, and a gesture, followed by your name. The full group echoes each person's name and gesture.

4. Code of Arms (15 min.)

Each participant will draw their own "Code of Arms" with 1-4 symbols to represent values or things that are particularly important to them. After complete, each participant will present his or her "Code of Arms" and explain what it means.

5. Life's Priorities (10 min.)

Each student receives a bag with the following labels: Family, Friends, School, Arts, Sports, Church, and Other. Students put the labels in order according to what is the most important thing in their lives at this particular moment in time, and explain to the group.

6. Two Strengths and a Struggle (10 min.)

Students will take a few minutes to reflect and take notes on two strengths and a struggle they believe they have. Students will share their thoughts with the group as a whole.

7. Memories of Pomaika'i (10 min.)

Students will make physical snapshots according to the following prompts:

- a) What is the feeling you get when you think of Pomaika'i?
- b) What is a memory you have of Pomaika'i?
- c) What is the most important thing you learned while at Pomaika'i?

Students then sit and discuss each **on** of these prompts as a group.

8. Closure (5 min.)

Facilitator will thank students, remind them that we'll be talking more one-on-one, assign the "Social and Emotional Well Being" form and say good-bye.

Student Interview Protocol

Materials: audio recorder, healthy snack and drink, two tickets to MACC performance,

Time: 60 minutes

Procedure: I will ask questions aligned with the following prompts, extending and probing as required to elicit examples, elaboration and explanation.

1. What are the things you really enjoy about school?
2. What are your best subject(s)?
3. How do you feel about working with other kids on school projects? How do you feel about other kids you go to school with?
4. What are your teachers like? How do you feel about them?
5. If you could change anything about school, what would you change?
6. What are the kinds of things you enjoy doing outside of school?
7. What were your most memorable arts experiences at Pomaika'i?
8. How did you feel about having the arts as a part of your learning at Pomaika'i?
9. How do you think having the arts influenced the way you learned?
10. How do you think having the arts influenced who you are as a person?
11. Where do you see yourself 10 years from now?
12. Please complete the following form that will tell me more about your emotional and social life. It is completely confidential, I will not share it with anyone and I will destroy it when I am finished. (after) Is there anything more you can tell me about how you have rated yourself on this form?
13. Is there anything else you'd like me to know about yourself, or your experience at Pomaika'i?

Parent Interview Protocol

Materials: audio recorder, two tickets to MACC performance

Time: 45 minutes

Procedure: I will ask questions aligned with the following prompts, extending and probing as required to elicit elaboration, examples and explanation.

1. Tell me more about yourselves – where you are from, what kind of work you do, and what your family structure is like?
2. What is the role of the arts in your family’s life?
3. Tell me about your child (participant). What is his/her relationship with the arts?
4. What kind of experience did your child (participant) have at Pomaika‘i?
5. How do you believe arts integration influenced the way your child learned?
6. How do you believe arts integration influenced who your child is becoming as a human being?
7. Tell me about your child’s academic strengths/struggles?
8. Please complete the following form that will tell me more about your child’s emotional and social life. It is completely confidential, I will not share it with anyone and I will destroy it when I am finished. (after) Is there anything more you can tell me about your ratings?
9. What are your hopes for your child?
10. What are your fears for your child?
11. Where would you like to see your child 10 years from now?
12. Is there anything else you would like to tell me about your child? Is there anything else you would like to tell me about Pomaika‘i? Or about arts education?

Teacher Interview Protocol

Materials: audio recorder, healthy snack and drink, two tickets to MACC performance

Time: May vary depending on how many students the teacher is discussing. Multiple sessions may be required if teacher is commenting upon multiple students.

Prior to Interview: In consultation with student(s), teacher will select three samples of classwork for each participant.

Procedure: After introducing the project, explaining the research goals, attaining consent and attaining permission to record, I will ask questions aligned with the following prompts, extending and probing as required to elicit elaboration, examples and explanation.

1. Tell me more about yourself. How would you describe your teaching style?
2. Can you tell me about anything you've noticed about Pomaika'i students in general? Are there any differences you notice in contrast to students who come from other elementary schools? What makes you say that?
3. Please tell me about this student's academic strengths and weaknesses.
4. Tell me more about how you selected these samples of student work? What does this work tell us about this student?
5. Please complete the following form that will tell me more about this student's emotional and social life. It is completely confidential, I will not share it with anyone and I will destroy it when I am finished. (after) Is there anything more you can tell me about your ratings?
6. What are your hopes for this student?
7. Is there anything else you would like to share with me about this student?

Social and Emotional Well-Being Survey

(adapted from Australian Council for Educational Research, as cited in Caldwell & Vaughn, 2012)

Your name: _____ Date: _____

To the best of your ability, please rate yourself as honestly as possible.

The scale is defined as follows:

| | | | | |
|----------------------|----------|---------|-------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

1. I have positive self-esteem (I like myself).

1 2 3 4 5

2. I volunteer to make my community a better place.

1 2 3 4 5

3. I like being in school.

1 2 3 4 5

4. I get along with classmates, including those who are different.

1 2 3 4 5

5. I get along with teachers.

1 2 3 4 5

6. I am interested in helping others.

1 2 3 4 5

7. I participate in a wide range of activities.

1 2 3 4 5

8. I relate positively to my family.

1 2 3 4 5

9. I feel like I belong in school.

1 2 3 4 5

10. I make responsible choices to stay out of trouble.

1 2 3 4 5

11. I feel safe and free from physical harm.

1 2 3 4 5

12. I engage in healthy behaviors.

1 2 3 4 5

13. I don't often feel down.

1 2 3 4 5

14. I act with care and forethought, not impulsively.

1 2 3 4 5

15. I make friends easily.

1 2 3 4 5

16. I am satisfied with my achievement in schoolwork.

1 2 3 4 5

17. I don't stress out too easily.

1 2 3 4 5

18. I behave with honesty.

1 2 3 4 5

19. I don't worry much about what others think of me.

1 2 3 4 5

20. I have good control over my temper.

1 2 3 4 5

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