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Supporting material:

Table 1: Demographics



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Noncognitive Factors in an Elementary School-wide Model of Arts Integration

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Abstract. *Pomaika'i Elementary School has answered a call to improve education by providing content instruction through the arts. How does school wide arts integration in an elementary setting support students as they transition to middle school? This bounded case study examines the experiences of eight families through a series of interviews with students, parents, and teachers. It describes and explains learning through the arts within three overarching noncognitive factors: a) academic mindsets, or the psychological and socially related attitudes a student holds with respect to academic goals; b) learning strategies that support thinking, remembering, or understanding concepts; and c) social skills or inter-personal behaviors such as interacting through cooperation, assertion and empathy. This study concludes that noncognitive factors provide a valuable lens for examining preparation for college, career and community readiness, with arts integrated learning as a viable pedagogy to that end.*

Introduction

In 2001, the Hawai'i State Legislature enacted ARTS FIRST, identifying the arts as a core subject in the state. One of the major goals articulated in the ARTS FIRST Hawai'i Strategic Plan is to guarantee a comprehensive arts education for every elementary student by the year 2018, but today, we are unclear where we stand on this goal. Some elementary schools employ part-time resource teachers, while others tap their community resources for arts experiences. Some engage professional artists in residence for students in a single grade level, while others support self-selected teachers in arts professional development. In other schools, there is very little evidence of any arts curriculum. Importantly, there is a shortage of certified K-12 teachers in all art forms. The individual initiatives schools take to ensure that some of their students have exposure to, and engagement in, the arts are important, but do not yet meet the mandate to reach all students of all elementary schools in Hawai'i. Nor do these catch-as-catch-can opportunities provide a comprehensive, enduring approach to arts education with continuity of instruction.

Pomaika'i Elementary School provided one solution to this conundrum when it developed a school-wide arts integration model. The school opened its doors in 2007 with a commitment to the arts at the onset, explicitly incorporating the arts to support the development

of the whole child. The vision promised to engage children with a variety of learning styles and backgrounds by providing them opportunities to construct new understandings across the curriculum through the arts. In the spring of 2012, Pomaika'i Elementary School graduated its first class of students who had attended from grades K-5. The research question of this inquiry evolved from the growing curiosity of Pomaika'i teachers, administrators, parents, and community partners who had invested in providing these children with an education model significantly different from other schools in Hawai'i where reforms have been spurred by Race to the Top funding priorities. They wanted to know: How does school-wide arts integration in an elementary setting support students as they transition to middle school?

Background

A growing body of evidence points to the social and emotional benefits of art education, including development of imagination, risk-taking, motivation, belonging, engagement, self-confidence, self-expression, and empathy (Caldwell & Vaughan, 2012; Eisner, 2002; Mason, Steedly, & Thormann, 2008; Stinson, 1997; Sullivan, 2003). Through analysis of longitudinal data, Catterall (2009) suggest students with low socio-economic status demonstrate stronger pro-social behaviors when provided an arts-rich education. Although studies such as these often demonstrate correlation rather than causality, similar research supports the hypothesis that students with arts-rich backgrounds experience more success in both academic and civic behaviors than their counterparts (Catterall, Dumais, & Hampden-Thompson, 2012).

Alternatively, in a meta-analysis of causal relationships between arts instruction and non-arts outcomes, Hetland and Winner (2001) identify only a few areas with reliable links. The authors argue policy makers should not justify the inclusion of arts curriculum based on claims of secondary benefits; one does not study history to improve in mathematics. They add this caveat: increased motivation, confidence, and effort inherent in arts integrated curriculum may provide powerful entry points to academic learning, especially with students who may not be academically inclined. This proposition deserves further attention (Hetland & Winner, 2001).

Arts integration has become an increasingly dynamic framework for arts curriculum, especially at the elementary level (Cornett, 1999; Duma, 2014; 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, contending that arts integrated experiences still advance powerful learning in the arts themselves. Other educators find arts integration a powerful pedagogy and 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 the arts are or what arts integration should look like. Remer (1990) envisions an upward spiraling evolution of integration, including teaching with, in, about and through the arts. In other words, teachers may incorporate a subtle arts orientation using the arts to create ambiance in the classroom (with), teach the arts by providing explicit instruction in a discreet art form (in), teach arts as historical or intellectual content (about), or apply arts techniques to reach understanding in other content (through). In Remer's taxonomy, all forms of arts instruction are viable and valuable to varying purposes and degrees. Importantly, each delivery system serves a powerful, purposeful function when working in

conjunction with the others. For example, children learning *about* an art form have greater exposure and understanding when they are also active participants *in* the art form and learning a range of content *through* the art form. Arts integration may thread throughout a curriculum with a thorough variety of methods and for a range of purposes.

Similarly, Murray (2004) proposes a framework crowded with prepositions, discussing drama as something that can be done to, for, or with children. She develops her ideas into a continuum of status: peripheral, utilitarian, craft, and finally art. In the peripheral mode, art is a part of the environment; utilitarian art serves a purpose as a coffee mug might; a craft requires technique and skill; and art is a pure act of creativity.

Bresler (1995) observes a variety of teaching styles and pinpoints the barriers each style poses to powerful arts integration. A subservient approach, in which craft-like arts activities spice up other subjects is used most commonly. For example, a teacher might use a song to introduce a new subject as an anticipatory set. Bresler (1995) rarely observes a co-equal, cognitive approach in which higher order cognitive skills combine with aesthetic qualities in meaningful learning. More often, she perceives 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. Finally, Bresler's (1995) social integration style includes events such as schools' stage performances or exhibitions in the spirit of community celebration. These varying descriptions help to characterize the ways we see arts integration happening in classrooms across the nation.

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 a creative process which connects an art form and another subject and meets evolving objectives in both" (Silverstein & Layne, 2010, p.1). This definition emphasizes how arts are pathways for teaching and learning. Students must be involved in creating art, not only responding to arts experiences or preparing for performances. Finally, this definition requires learning goals in both an art form and a non-arts content area.

In this current era of accountability, arts integration may be devolving into a term used when the arts are tools to teach content on tests. Mishook & Kornhaber (2006) 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 co-equal relationship between the arts and tested subjects is only maintained in schools with a strong arts focus, mission, and faculty who are well-prepared and committed to the endeavor. These conclusions are echoed by Rabkin & Redmond (2006) who detail characteristics of powerful arts integration school programs that: a) develop meaningful partnerships among schools, community arts organizations, and local teaching artists; b) value student achievement and school development as essential components of their missions; c) engage a range of educators from multiple disciplines to make powerful intersections between the arts and other subjects, and d) utilize the arts as methods of learning and communicating understanding and engage both arts curriculum and arts integration in other subject areas. Pomaika'i meets these criteria.

The School

At the time of this study, Pomaika‘i Elementary School was in its sixth year of existence. According to its *School Status and Improvement Report* (2013), it was built to meet the needs of families in a new housing development. The students, primarily of Filipino, native Hawaiian, Japanese and/or white ethnic backgrounds, were from young local families who were living in their first homes and working multiple jobs to make ends meet. In a school with 625 students, 25% were receiving free and reduced lunch, 7% receiving Special Education services, and 3% had limited English proficiency. The median household income was about \$75,000. In terms of education attainment, 26% of the parents had college graduate experience, 31% reported having some college experience, and 31% graduated with a high school diploma as their highest degree. In Hawai‘i, students have the option to apply for a Geographic Exception (GE) to attend schools out of their own districts. Notably, this past year, Pomaika‘i accepted 225 GE students, roughly a third of its total population, with a waitlist of many more. The Hawai‘i Department of Education (HDOE) recognized Pomaika‘i with an Annual Achievement Award every school year from 2009 through 2013, and the Hawai‘i Arts Alliance honored the school with Arts Excellence Awards in 2010 and 2012. To this day, Pomaika‘i students consistently score above state average on Reading, Mathematics, and Science assessments.

Since its inception, Pomaika‘i has cultivated an arts integration model in which: a) all classroom teachers are trained and supported in arts integration throughout the year; b) part-time specialists provide discrete arts instruction; c) all students receive integrated arts residencies from partnering teaching artists; and d) a full-time arts integration coordinator tunes the map to sustain the vision. Professional development for teachers has been focused on specific arts strategies in drama (such as tableaux, teacher-in-role, and storytelling), as well as big-picture thinking (such as questioning, critical thinking, and literacy – all through the arts). Arts integration professional development workshops take place at the school for the full faculty as well as off-campus for self-selected and school appointed individuals. They are set up to be both requisite events and a menu of options. They span from discrete three-hour workshops, to 50-hour experiences that culminate in extensive portfolios that document teacher learning. They occur during the school day, after school, and in the summer. In short, Pomaika‘i teachers are constantly engaged in learning, growing, and experimenting as arts integration practitioners.

For example, for six consecutive years, individual Pomaika‘i teachers have participated in the *Collaborative Residency* professional development. This program was conducted annually by the Honolulu Theatre for Youth (HTY), with support and funding from the Hawai‘i Community Foundation (HCF), Hawai‘i State Foundation on Culture and the Arts (HSFCA), and Hawai‘i Arts Alliance (HAA). Each participating classroom teacher was purposefully partnered with a teaching artist. One year, the focus was on STEAM (Science, Technology, Engineering, Arts, and Math), and partners engaged in 12 hours of workshops to develop common understandings about intersections between science and the arts, practice co-teaching structures, and devise essential questions and enduring understandings to guide their unit planning. They subsequently engaged in 24 hours of additional professional development to learn the specific vocabulary, technique, and methodology of a single art form. Once the new school year began, the *Collaborative Residencies* officially included 10 shared planning sessions and 10 shared classroom lessons, although most teachers committed a great deal more time to both planning and instruction. Finally, teachers and teaching artists engaged in a six-hour reflective session to assess evidence of student learning. The minimum expectation for active engagement in this

professional development was 50 hours. To date, 13 Pomaika‘i teachers have participated in at least one *Collaborative Residency*.

As a result of these collaborations, one fourth grade teacher and his teaching artist partner created a unit of study on the earth's fast and slow processes of change. Students used a variety of dance strategies to explore the earth's structure, plate tectonics, land formation and erosion. Fourth graders made connections between science and culture as they interpreted art depicting Pele, the goddess of volcanoes and made inferences that informed their movement. Across the hall, a third grade teacher and her partner developed a unit to explore the coral reef habitat, the adaptive behaviors of the animals that live there, and the impact of human activity on the reef ecosystem. The class worked together to create a coral reef mural using oil pastels and collage. In another classroom, a fifth grade teacher wanted to learn more about how to teach abstract movement with advanced choreographic principles. She and her teaching artist partner co-planned and co-taught a semester long inquiry: How does wind energy transform? Students engaged in experiments, field-based explorations, expert interviews, science notebooks, creative movement improvisation, and dance choreography (Figure 1) to build complex understandings.



Figure 1. Example of a *Collaborative Residency* with a STEAM focus. Fifth grade dancers explore how wind energy is transferred for human use by choreographing the actions of a turbine and the movement of wind.

I visited this fifth grade Pomaika‘i teacher and observed the influence of the *Collaborative Residency* program on her teaching in the spring semester, long after her teaching artist partner had left her classroom. I immediately noticed a difference in her classroom environment, which had a large open space in the middle and flexible seating arrangements around the perimeter so that students could easily transition between movement and deskwork. The students began their class with an interactive focusing exercise, walking throughout the room and quickly grouping into physically connected shapes according to the number the teacher called out. Next, the teacher presented the groups with a short text about the importance of the watershed, and asked them to identify powerful language in the text that conveyed the purpose and significance of a watershed. She prompted these randomly formed small groups to choreograph eight-counts of creative movement to embody the ideas in the text. The teacher

encouraged them to use large, loose, symbolic movement. She also challenged them to change levels and directions in space. While clearly focused on conveying a concrete idea, (at one point a group even retrieved a dictionary to look up the word “maintain”), students created movement to communicate processes rather than pantomime models. Students were also able to de-code this meaning as audience members. For example, after an informal sharing of the eight-count watershed dance, one young audience member suggested, “I see a lot of elbow movement and it reminds me of currents.”

On any given day, in any given classroom, teachers are implementing what they have learned through professional development. The school administration expects all teachers, from novice to veteran, to integrate drama using tableaux and pantomime (Figure 2), and some even go further to engage students in dramatic structures of role-play. Teachers typically integrate drama with literacy and language arts, challenging students to interpret characters and conflicts by prompting them to interpret the text with their bodies. They focus on dual objectives – high quality artistic expression, paired with understanding in a content area.



Figure 2. Professional development at the Maui Arts and Cultural Center. Pomaika‘i teachers learn drama strategies by becoming actors themselves. On the chart behind them, they have listed criteria for a quality tableau.

In another school-wide initiative, Kennedy Center teaching artist, Sean Layne, has trained the entire Pomaika‘i faculty to apply fundamental aspects of acting – such as concentration, cooperation, and collaboration – to everyday classroom management. These drama strategies empower students to exercise self-control and accountability while developing a socially and emotionally supportive community of learners (Figure 3). Professional development facilitators like Sean engage teachers directly, but also model lessons in the classrooms to demonstrate strategies in action with students, followed by in-school coaching as teachers implement what they have learned.



Figure 3. The Actor’s Toolbox. Kennedy Center presenter, Sean Layne, demonstrates how to teach kindergarten students to focus and concentrate as actors do.

Pomaika‘i’s full-time arts coordinator carefully sequences arts learning for teachers and provides them with ongoing pressure and support. For example, the arts coordinator visits every classroom and observes each teacher engaged in drama integration to provide them guidance and feedback (Figure 4.) The full-time arts coordinator ensures the entire faculty – including the principal, counselor, and special educators – share the same arts vocabulary, practice a core of high-leverage arts strategies, and pursue the same vision of education. At the same time, each classroom teacher cultivates his or her own strengths in various art forms and has the freedom to pursue personal interests and development opportunities in the arts, all supported financially by the school.

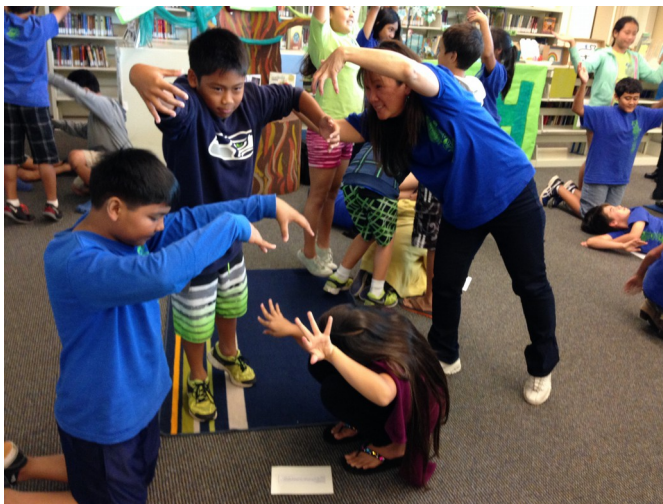


Figure 4. Support from the Arts Coordinator. Rae Takemoto actively supports teachers by participating with the class. Here she is working together with fourth grade students in a tableau exercise to demonstrate transfer of energy.

Although the school cannot employ fulltime specialists in each art form due to the financial constraints at the district level and the lack of availability of certified arts specialists,

part-time specialists teach visual arts and Hawaiian arts. In traditional Hawai'i schools, specialists often plan independently and teach classes on a rotating schedule throughout the year. A typical class might enjoy instruction in the arts for 30 minutes, once every three weeks. At Pomaika'i, however, the arts specialists plan together with the classroom teachers in order to connect and extend the curriculum, teaching two grade levels per quarter with a focused unit of study.

The *kumu* (Hawaiian teacher) focuses on the culture, language, history, people, and place all through traditional Hawaiian art forms. For example, when children are learning about the rain cycle, they might learn an *oli* (chant) about the various rains on the island of Maui. When they are learning the history of Hawai'i, students might practice *Kawika*, a *hula kahiko* (ancient hula) honoring Kalākaua, Hawaii's last reigning king. When they study the purpose of rules in society, they might learn the *mo'olelo* (story) of how the demigod Maui stole the calabash of winds and destroyed a village. At Pomaika'i, students learn traditional arts such as oli, hula, and mo'olelo alongside the creative arts (Figure 5).



Figure 5. Traditional Hawaiian arts. Second graders learn a *hula noho* (sitting hula).

The art teacher often begins her first class session with a brief introduction of a specific concept through visual text, addressing both academic content and fine arts standards. She prompts them to discuss art exemplars, guiding students to recognize specific art elements and principles and make informed inferences about how and why an artist used these tools to communicate an idea or emotion. After demonstrating a new technique, students create their own work implementing the new technique. Close observation of reference materials is always a focus in the art room; students study subtle, but important, nuances within works of art, analyze relationships in size, color, and between parts of a whole, and demonstrate understanding through their own work (Figure 6). The art teacher also attends the same professional development as the classroom teacher, so she also integrates drama strategies to encourage students to embody their ideas.



Figure 6. Looking and talking about art. Beth Marcil, Pomaikai's art teacher, facilitates first graders as they discuss the work of their peers. They are making creatures using shapes, which connect with their writing workshop process.

In one self-portrait collage unit, fifth grade Pomaika'i students practiced representational and abstract drawing skills, then chose one of the two styles to develop into a mixed media portrait. Using weathered pages from old books in a variety of languages, they tore and glued small pieces to a heavy board. They brushed thinned glue over the collaged surface to seal the papers and protect them from abrasion from drawing and erasure. Using small sketches as guides, students drew to scale on the sealed surface, then inked with Sharpies. They applied tempera paint in a wash that was thin enough to see the collaged pages beneath, but thick enough that they did not compete with the portrait. Finally, the young artists adhered other collage materials, including a few 3-D objects, to the portrait as a finishing touch (Figures 7 and 8.)



Figures 7 and 8. The Artist in Me. Fifth graders playfully express themselves through collage portraiture.

At Pomaika‘i, every grade level receives one residency delivered by a teaching artist in dance and another in music over the course of the year. Organizations such as the Maui Dance Council provide these direct services to classroom students on a regular basis, but also engage in collaboration, co-planning and co-teaching with classroom teachers. The school employs the highest caliber of teaching artist who has been vetted, trained, and proven effective in school settings. The national teaching artists are selected by the Kennedy Center as leaders in their field, and local teaching artists all undergo a rigorous process of application, interview, and observation conducted by the Hawaii State Foundation on Culture and the Arts (HSFCS). Both of these institutions require evidence of artistry, classroom experience, and pedagogical foundations. They also require their teaching artists to engage in ongoing professional development specific to their dual roles of teacher and artist. Unlike relationships often forged between schools and providers of supplementary arts instruction, Pomaika‘i expects a sustained commitment from its teaching artist partners, most of who have been in service to the school’s students and teachers from inception and contribute meaningfully to the school’s practices and curriculum. These teaching artists defy many of the limitations faced by other providers of supplemental arts instruction (Richerme, Shuler, & McCaffrey, 2012).

Partnership with the Maui Arts & Cultural Center (MACC) ensures the school’s access to nationally renowned arts education consultants and presenters. The staff and board of directors at the MACC have sustained an ongoing commitment to raise community funds to support meaningful arts integration and ongoing self-study to address the effectiveness of these practices 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 teachers with high quality professional development in arts integration. The Kennedy Center also supported three years of action research at Pomaika‘i (2007-10) and consultation on the development of shared leadership at the school.

Theoretical Framework

This study employs a framework of *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, p. 2). Cognitive domains of human experience, measured by IQ and standardized tests, explain what a person knows and can do with content. Hawai‘i State Assessment (HSA) results for the 2012-2013 school year reveal Pomaika‘i students outperformed those from neighboring elementary schools who would later attend the same middle school. Without controlling for countless variables such as family socio-economic status, level of parent education, or student involvement in extra-curricular activities, it is implausible to draw causal relationship between these academic achievements and involvement in arts integrated curriculum based on test scores alone (Melnick, Witmer, & Strickland, 2011). Winner, Goldstein, and Vincent-Lankrin (2013) suggest that, even though correlational data reveals how students who participate in a large number of arts courses have higher educational achievement (as measured by scores on verbal and mathematical tests), we cannot conclude that the arts are the *cause* of higher achievement. Accordingly, it is only possible to conclude that the curriculum at Pomaika‘i has not placed its pupils at a disadvantage in terms of cognitive performance, as measured by test scores, when compared to its counterparts.

Instead of using the traditional approach to study transfer, Winner et al. (2013) contend researchers should “examine whether learning in one domain predicts greater *preparation for future learning* [emphasis in original] in a transfer domain” (p.33). Noncognitive factors provide an alternative lens for examining and explaining the role of an arts integrated education in preparing students for future learning. Noncognitive factors include a large range of dynamics embedded in the educational experience: feelings, attitudes, personality traits, beliefs, behaviors, habits, motivations, relationships, engagements, and strategies that contribute to a human’s capacity to learn. A recent meta-study published by the University of Chicago (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 inquiry 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 tactics that support thinking, remembering, or understanding concepts; and c) *social skills* or inter-personal behaviors such as interacting with others in socially acceptable ways through cooperation, assertion and empathy.

In response to Hetland and Winner’s (2001) call to “carry out ethnographic studies of exemplary schools that grant the arts a serious role in the curriculum” (p.6), this study pursues an explanation of arts integration as a catalyst for the development of mindsets, strategies and skills for learning in any subject. The arts are neither essential to this recipe, nor do they offer the only path for achieving these things; I have seen teachers in schools across the state wearing T-shirts asking, “Got Grit?,” graphic organizers outlining the characteristics of positive mindsets, and school announcement boards extolling the virtues of “Habits of Mind” (Costa & Kallic, 2008). There are many ways to help children love learning and believe they are capable learners. In examining the work at Pomaika‘i, however, I submit the integration of the arts is core to the noncognitive dynamics at this particular school. Arts integration has provided teachers with tools for systematically and explicitly connecting children to the kind of energies and attitudes requisite to a positive learning environment.

Method

As an intrinsic case study (Stake, 2010), this research does not strive to meet criteria of reliability or transferability, but does endeavor to rigorously and truthfully explain the significance of one particular approach to arts integration within a broader context of school and life. Schools are complex social and cultural places in which policy can either reproduce or disrupt assumptions (Diem, Young, Welton, Mansfield & Lee, 2014). Ethnographic, qualitative approaches to examining policy recognize the creation of policy as “an extremely complex, often contradictory process” (Levinson, Sutton, & Winstead, 2009, p.770). This qualitative, bounded case study (Yin, 2003) focuses on the way individual graduates of Pomaika‘i Elementary School experienced their time there. The case study research strategy employs thick description (Geertz, 1973) and grounded analysis (Strauss & Corbin, 1998) to explain the impact of an education driven by arts integration at the elementary school level within the real-life contexts of young people. The young participants of this study have entrusted me with their stories and impressions to help explain how the Pomaika‘i experience has informed their interests, achievements, choices, sensibilities, and skills as they enter middle school.

Participants

Through purposeful sampling (Creswell, 2007) I selected eight key student participants based on the recommendations of a Pomaika‘i administrator and a counselor who knew these children well. I invited one group of four students, just graduating from the fifth grade at Pomaika‘i Elementary School and poised to enter middle school. The other group of four Pomaika‘i graduates had just completed their first year of middle school as sixth graders. The same selection criteria were applicable to both groups of students who had: a) experienced arts integration in Pomaika‘i classrooms where teachers implemented strategies and pedagogies with regularity and fidelity (often and well); b) attended Pomaika‘i Elementary school for more than three years before transitioning to middle school; and c) had strong communication abilities in order to respond to questions with detail and clarity. Each group was represented by a cross-section of boys and girls (Table 1). Student ethnicity, which does not play a major role in this study, is typical of Maui’s population: a blend of Japanese, Filipino, and Caucasian ancestry. Notably, many of the parents’ careers and backgrounds do not obviously lend themselves to prior exposure in the arts. For example, the sample included parents who are accountants, engineers, electricians, police, managers, and health care professionals. Several made statements similar to Glenn’s mother who said, “We’re not into the arts, not at all.”

Table 1
Key Participant Demographics

| Student | Grade | Sex |
|----------|-------|--------|
| Marco | 6 | Male |
| Joshua | 6 | Male |
| Brittany | 6 | Female |
| Taylor | 6 | Female |
| Glenn | 5 | Male |
| Charlie | 5 | Male |
| Theo | 5 | Male |
| Corrine | 5 | Female |

To triangulate student responses, I also interviewed one or more of the key participants’ parents, one of each key participants’ teachers, and one Pomaika‘i administrator. Contributions came from a total of 10 parents (in two instances a mother and a father both participated) and six teachers (two teachers had more than one student in their classrooms). Independently of the student participants, I interviewed two fifth grade teachers, and four sixth grade teachers. Each of the middle school teachers taught at least one of the student participants in one content area and also served as that student’s home room advisor. 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 Hawai‘i’s 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 inquiry (Adler & Adler, 1994). I am an arts educator who has provided professional development for Pomaika‘i teachers both in and out of school settings, although the students and parents were not familiar

with me in this capacity. Being an insider has had its benefits (A. Smyth & Holian, 2008); I am familiar with related literature, theory, and policy of arts education, and well acquainted with the arts-integrated vision, vocabulary, and curriculum at Pomaika'i. However, it is possible that responses from some of the participants may have been influenced by what they may have perceived I wanted to hear. It is also possible that my prior knowledge has led through certain assumptions throughout this research process (DeLyser, 2001; Unluer, 2012). It is my best intention to truthfully explain, through evidence, the role of the arts in a young child's education, and neither over state nor advocate beyond the empirical information.

Data

I initiated the study with two focus groups, one for each group of students from the middle school and Pomaika'i Elementary School. The focus groups provided an opportunity for student participants to share personal information about themselves 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 about perceived effects of arts integration that I would repeat later in the student interviews so the participants might consider their responses thoughtfully and independently over time.

Following the focus groups, I interviewed each student individually, following a semi-structured protocol designed to elicit specific reflection on the role of the arts in their lives. 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 on how those experiences played out in their current lives and imagined futures.

I also interviewed parents to hear more about their perspectives on 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 perspective to corroborate student self-perceptions.

Finally, I interviewed each key participant's teacher individually to gather information generally and specifically about the influences of the arts integration methods taking place 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 specific comments about the strengths and challenges of each key participant as well as Pomaika'i students as a whole. Each teacher co-selected three artifacts of student work with the student to use later as a discussion catalyst during his or her interview with me.

Throughout the data collection period, I asked questions of the Pomaika'i administrator with two short interviews and follow-up emails to describe the model, verify some details provided by other participants, and provide her own perspectives. In addition, I sent each family a profile with the description of the student along with my analysis of his or her verbatim quotes as a member check.

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 (Strauss & Corbin, 1998), 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 concepts for selective coding; synthesizing ways arts integration apparently influenced the participants; and adapting these codes to reflect words or phrases the participants used.

Non-Cognitive Development Through Arts Integration

The key participants, their families, and their teachers responded with a range of experiences and perspectives to the central question of this study: How does school-wide arts integration in an elementary setting impact student success as they transition to middle school? Explanations were bound to the identity of each child and the specific social and emotional development of that child. For example, the curriculum challenged Glenn and Charlie, two of the more introverted participants, to develop confidence in their social interactions. Alternatively, the more extroverted students, like Theo or Marco, felt the school built upon their strengths by creating an environment where they could flourish. Despite these individual differences, common insights and explanations arose across discussions with participants within three overarching noncognitive factors that I will discuss in detail: a) academic mindsets; b) learning strategies; and c) social skills.

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 discipline; a focus on growth over time can increase intellectual achievement (Dweck, 2012). Such a dynamic is akin to attribution theory from the field of psychology: if an individual experiences a negative reaction while engaged in a task, such as a failure, and believes this occurred as a result of an innate deficiency, the individual will not likely pursue or engage in the task again. However, if the individual believes the failure could be attributed to poor effort, motivation, or organization, all factors within his or her control, that individual is more likely to keep trying and ultimately succeed (Dweck, 1975; Weiner, 1979). This study's participants explained ways in which Pomaika'i's art integration supports academic mindsets by contributing to attitudes related to drive, safety, and joy.

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." A middle school teacher told me about her Pomaika'i students' reactions to their HSA tests results:

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 already exceeds proficiency.

This "drive," characterized by tenacity and grit, is a dominant description of Pomaika'i students who are motivated and focused, with goals to develop beyond proficiency. 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.

Participants attributed processes unique to the arts, such as rehearsal and art criticism, to the drive apparent in so many of the students' 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. For example, Honolulu Theatre for Youth Education Director, Dan A. Kelin II, has provided teachers with a template for coaching drama work in the classroom. Teachers prompt students with an open-ended, interpretive task, then count-down as students strike a frozen image. As they hold their physical shapes, the teacher quickly makes objective observations to describe their choices: "I see bent knees, curved backs, and arms reaching toward the sky." The teacher then prompts students to return to neutral and guides them to revise for improved quality and/or creativity. For example, a teacher might say, "This time, show your idea a new way and exaggerate the feeling that you are going for. Add a twist and change your level." After a number of revisions, the teacher asks students to reflect, either self-assessing or commenting on the process, for example, "How was your experience working with a partner different from when you worked alone?" Eventually, they informally perform for each other and audiences describe, interpret, and evaluate the work of their peers.

Incidentally, this coaching process is a natural part of a formative assessment loop in which teachers and students analyze their own performance and the performances of others to actively seek out ways to progress and improve. 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. 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 wonder. Marco's mother fondly remembered his fourth grade teacher: "She taught them, you know, what quality work looks like through art."

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 explained how she responds to 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.'"

The contribution of the arts to the development of persistence lies in an ethos of embracing mistakes as opportunities and failures as possibilities. Brittany remembered starting 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 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 continue her work. She learned how to laugh when her group made mistakes and eventually became quite comfortable with a trial and error approach to learning. Likewise, Charlie 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.” 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 this dynamic in 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.”

Safety. Research suggests students who feel they belong in their classroom or school community – accepted, respected, and included – benefit psychologically and academically, as they invest more in themselves and in their learning (Gillen-O’Neel & Fuligni, 2013). A sense of belonging is related to socio-cultural factors as well as self-esteem and physiological conditions. Case studies show how a lack of belonging is directly related to school dropout (Ma, 2003). In this study, participants characterized their sense of belonging as “safety.”

Pomaika‘i’s approach to the arts is very much an ensemble model, in contrast to a star model common in some arts conservatory or magnet schools. Pomaika‘i 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 in performance projects, teachers cast several actors to trade off the role, rather than put a solo child in the spotlight. The participants in this study consistently used the word “safe” to describe ways students are embraced and protected by the whole, never isolated or made to feel “awkward.” Marco defines his sense of security almost metaphorically: “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 pressed 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.” In Hawai‘i, a “calabash cousin” is someone who shares the bonds and privileges of family, but is not actually a blood relative.

Parents of Pomaika‘i graduates contrasted their prior experiences with other elementary schools. One parent explained:

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 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 art-making, students self-generate inclusion and support within a community connected by shared goals.

The school also supports school-wide cohesion and belonging beyond the classroom and the grade level boundaries through performance. The study's participants fondly remember May Ho'ike, an annual event when each class performs for the entire school, families, and community to close out the school year. 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 me 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 their older peers, and older children encourage the younger ones. This recognition between students at varying grade levels encouraged a school-wide sense of belonging.

Joy. In order to do well in school, students must perceive value in tasks and see them as purposeful, relevant, and meaningful. When these things are present, learners experience intrinsic value and engagement, or, in simpler terms, "fun." Intrinsic motivation is fueled when students experience joy with purpose, structure with choice, and energy with control (Egan, 1999; J. 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 enjoyable (Bond & Stinson, 2007; Csikszentmihalyi, 1975). Wolk (2008) advocates for the inclusion of the arts within the school day as one method for generating joy for learning.

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." Other parents made similar observations, noticing the enthusiasm their children demonstrated for learning at Pomaika'i, contrasting that with their own learning experiences, and recognizing ways in which "fun" has contributed to the educational experiences of their children. Theo's mother felt this was especially true for her son:

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 he's in dance class. Like I said, it just gives his personality a place to excel.

The students who participated in this study simply felt more engaged when the arts were present in the classroom. For example, Charlie discussed how he felt learning through the arts,

And, it's more fun...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. But when you're having fun...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 routine, the “extraordinary sameness” of school (Goodlad, 1984) supported Charlie’s attention; the arts stimulated him into “wide-awakeness” (Greene, 1977) as an active participant in his own learning. 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 to have fun reading.

For all of these students, learning across content areas was more like playing and came easier as a result. Through the eyes of one teacher, Pomaika‘i students on the whole “enjoy coming to school, and have enthusiasm for learning.” She elaborated:

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.

Such observations endorse Plato’s ancient philosophy about the value of play, “for if [students] are not surrounded with such an atmosphere they can never grow up to be well educated and virtuous citizens” (as cited in Courtney, 1968, p.9). Play stimulates a child’s cognitive capacities: problem solving, language learning, symbolic thinking, and affective reasoning (Piaget, 1962). Through play a child constructs cultural meanings and basic social norms (Vygotsky, 1962). The value of play clearly extends beyond boundaries of art and into the broader worlds of child development.

However, it is impossible to ignore the centrality of play to the roles and meanings in the art world. For example:

It is no coincidence that the word for the main activity of childhood is the same as the word for what is done in theatre. Children play games and playwrights write plays. The artists who recreate the plays for the delight of adults were called players long before they were called actors, just as their home was called a playhouse long before it was called theatre – at least in our language. (Davis, 1981, pg. 1)

Although the arts are shaped by and reflected in the play instinct (Huizinga, 1950) they are not to be confused with play itself. The arts provide the structure through which creativity, discovery and meaning flow, abetted by one or more elements of play. 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 drama strategies and came to a new conclusion:

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

According to this teacher, the model created by Pomaika‘i harnesses the power of play through arts processes and structures, creating an environment in which the students sense both purpose and joy in their work.

Learning Strategies

Students can leverage 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 for learning. In addition to these basic study skills, learning strategies include the development of metacognitive awareness to develop a sense of self-control in learning (Efklides, 2014). Students from Pomaika‘i formed explanations to support three dominant aspects of learning with respect to metacognition: a) engaging in a variety of strategies including the arts; b) visualizing content through the arts; and c) “out-of-the-box” problem solving through art tasks.

Variety. Charlie worked on a coral reef project in the second grade, a 30-second public service announcement incorporating research, watercolor images, 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. As his father described it: “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 the ways students interacted with content material, views consistent with Multiple Intelligence Theory (Gardner, 1990), Universal Design for Learning (Glass, Meyer, & Rose, 2013; Hall, Meyer, & Rose, 2012) and Differentiated Learning (Tomlinson & McTighe, 2006).

Pomaika‘i families communicated a strong appreciation for the way the arts created opportunities for children 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.” Learning experiences that include the arts extend to more than one dominant type of academically oriented learner with typical proficiencies and provide options for learning that can both challenge and provide access to a range of learners within a diverse classroom setting.

Charlie shared his appreciation for this approach to learning:

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 for learning. It struck me how several student participants used the word “strategy” when discussing their arts learning, clearly demonstrating a sense of how the arts are a way of learning, as well as discrete

disciplines of learning. Whether learning *in* the arts, or *through* the arts, students appreciated the variety, as Corrine explained:

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. One parent said, "At first, we couldn't quite put together the art and the school." Another received advice to enroll his child elsewhere, "I mean, we live in the district, but we could have moved out." Several other parents were concerned about how learning through the arts would interact with standards:

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.

These misgivings faded as parents' paradigms shifted. They began to perceive the presence of the arts in the curriculum as added value, particularly with respect to the variety of learning opportunities for their children. 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, 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, in turn, how that helped them form understanding by creating images in the mind's eye, re-enactment, or modeling.

At Pomaika'i, students use their bodies to represent scenarios, concepts or to model systems through drama and dance. 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 were studying the solar system and how the planets orbit, so we had to do a dance about the solar system. So one person was the sun, and then we're all 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 detailed how she developed understanding, and Charlie's comment focused on 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 recall information at a later time.

Dramatic forms of expression added one more dimension to the strategy of visualization; students evoked the feelings of how characters or historical figures may have felt through emotional visualization. Theo explained: "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 interpretation:

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 provided students with concrete emotional images with which to connect, better understand the motivations and actions, and see the relevance for themselves in their own lives. 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. Marco said, "It sticks with you" through a more pleasurable process than rote memorization.

Working Outside-of-the-Box. Parent participants in this study expressed concern 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: "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... I do think that Charlie has more of that than I did." Similarly, Joshua's mother values 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 outside the box...and to think. 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 complex concept to define, teach, and measure (Makel, 2009; Reynolds, 2012; Saunders, 2012). Over the course of this study, parents related creativity to the ability to embrace ambiguity, face the unknown, and solve problems in novel ways. To them, arts integration serves each of these facets of creativity.

Parents claimed to see evidence of creativity in the way their children communicate, approach projects at home, and in the ways they interact with their friends. According to Marco's mother, Pomaika'i cultivates these behaviors by structuring learning around open-ended prompts in which students "are not told how to do something. There's no right or wrong." 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.

Creative problem solving at Pomaika'i also comes with an emphasis on student-centered ideas, as opposed to those that might be parroted from an outside source or replicated in a neat package. One middle school teacher described Pomaika'i students in general: "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." Joshua's teacher saw how his creativity had a contagious effect on other students: "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."

These skills also evolve from the emphasis Pomaika'i places on the collaborative generation of ideas requiring young people to offer their own ideas, accept the ideas of others, listen and respond, and negotiate without interference from the ego. Student participants 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 exciting products.

Social Skills

Evidence indicates positive social skills developed at the elementary level increase academic performance as 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. Social and emotional well-being, school environment, and teacher practices likely corroborate with social skills to impact positive behaviors (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). However, arts research supports the performance experience as a catalyst for collaboration and teamwork; unity develops among children who invest in the success of their performance group (Author; Sullivan, 2003) they develop a stronger sense of self (Heath & Roach, 1999; Stinson, 1997).

Interpersonal relationships formed through arts integrated learning were a large part of conversations with the participants of this study. Taylor suggested, "I'm not sure how to explain it. It's just now it's easier to work with groups and to ask teachers for help and just be more outspoken, not shy." Brittany explained, "It taught us how to connect to others." Their peers felt similarly; learning through the arts helped them become socially confident young adults with the ability to form lasting friendships. Patterns of this study indicate learning through the arts helps elementary students develop in three primary areas: a) self confidence; b) connecting with others in the learning community; and c) communication.

Self Confidence. Parents frequently commented about their child’s demonstrations of confidence. 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.” Other amazed mothers and fathers echoed this observation of fearless stage presence they attributed to experience in the performing arts. Taylor’s mom characterized 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.” Glenn, one of the more reserved contributors to this study, revealed this side of 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.”

Teachers involved in this study described the key participants as leaders who take initiative or provide ready assistance to peers. For example, Theo often organizes activities and vocalizes instructions among his peer group; Corrine and Taylor are quick to assist friends with their academic work; Brittany and Joshua eagerly plan and direct special events after school. One teacher noticed leadership in the way Pomaika‘i students eagerly volunteer to present in front of the class:

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, and we were defining gravity. And he volunteered and he's thrown up in the air. And the second time, he says 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. Another middle school teacher observed, “Yeah, I think confidence has a lot to do with it. Whatever the mind sees, most of the time, the kids perceive it that way so they will perform to that ability, yeah.” This remark is consistent with Bandura and Schunk’s (1981) theories of self-efficacy – when students have confidence they will be successful in school.

Finally, students themselves observed the influence of the arts on self-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.

There are several explanations for how students came to emerge from their “shells.” Performing arts tasks require students to take risks, and each time they experience success students may potentially see themselves as more capable, more effective. It is also feasible that when art tasks at Pomaika‘i bring students into meaningful collaborations, they develop confidence by positively engaging with others in their community. Finally, it is possible that the overall environment, created by multiple factors discussed within this study, cultivates an attitude in which children are encouraged to be themselves. Taylor explained: “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.”

Connection. Participants in this study shared many stories about various ways the students demonstrated love for their families and responsibility for the well being of their friends. The students described their peers as “honest” and “kind.” They described themselves as “happy” and “caring.” Their teachers described them as “fair,” “thoughtful” and “accepting of others.” These young adults seemed strongly connected to others.

At Pomaika‘i, students frequently work on projects and performances in collaborative groups, interacting with a full range of students both similar and dissimilar to themselves. Marco described what this looked like for him:

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” refer to a grouping strategy used by much of the Pomaika‘i faculty. 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 students must quickly find and physically connect with that same number of students. The goal of forming the group is more important than who is in the group, and students need each other to meet the challenge. Now in middle school, Marco continues to figuratively “connect” with a range of students. His teacher observed; “He can get along with introverted or extroverted. He can get along with rascal kind of kids as well as focused kids.” Likewise, Brittany’s teacher could see this characteristic in her: “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.” These reports suggest Pomaika‘i students learned to accept and even embrace others regardless of their diverse characteristics in order to accomplish their performance tasks.

Student-teacher relationships are also strong at Pomaika‘i. The participants in this study perceived their teachers as “friends” because of the way the teachers would engage, share humor, or even participate in arts experiences alongside the children. When teachers taught creatively and through strategies the students perceived as “fun,” students felt respected as learners. Of course, students recognized the many ways teachers connected with them that were not necessarily arts oriented; over all, the teachers clearly created an inviting, non-judgmental environment through a variety of tactics, the arts being just one of them. Parents noticed this, as Joshua’s mother explained:

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 I think with 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.

Similarly, Brittany’s mother characterized 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... 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.

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 spills over into the relationships students are able to form with each other.

Finally, teachers repeatedly described the students of Pomaika'i with respect to their capacity for compassion. 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.

A middle school teacher made a similar observation, "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 arts integrated curriculum requires students to walk in the shoes of others, to develop empathy by imagining the lives of others. 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 situations and contexts, and Pomaika'i offers ample opportunities for students to speak publicly. They receive explicit communication instruction through drama curriculum focused on verbal expression and implicit communication practice while speaking and listening to each other. From the May Ho'ike performances to the Public Relations student committee that conducts tours for visitors to the school, from morning announcements to the oral presentation of class projects, students must speak often and speak well. A Pomaika'i teacher who had been a teacher at another school for over a decade noticed:

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 [other] 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 constructed a similar contrast with 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?" 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.

The middle school teachers see the same thing when Pomaika‘i graduates come to them. One explained: “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.”

This study’s participants felt arts integrated experiences and curriculum benefitted communication. While this may have had some relationship with explicit instruction in oration, such as technical skills for annunciation or projection, the observations the teachers provided lead to the conclusion that student communication is enhanced by the collaborative nature of the arts experiences, the inclusive relationships among members of the community, the value placed the student’s self-expression, and on the open-ended exploration of independent thought.

Looking Forward

Pomaika‘i and schools across Hawai‘i have been facing tremendous change at the district, complex and school levels; these are the “seismic shifts” we also face as a nation (Sabol, 2013). Teachers are experiencing challenges implementing the new Common Core State Standards (CCSS) while under the pressure of a new Educator Evaluation System (EES). Data-based decisions rule and accountability is a constant undercurrent. New Smarter Balance Assessments are creating stress, especially now that student performance is being tied to teacher pay. Educators are frequently heard saying, “Not one more thing.”

In this climate, Pomaika‘i continues to pursue its vision, which incorporates arts integration on a foundational level, in all classrooms, at all grade levels. Their model has attracted curious visitors from the local, state, and national educational community, including HDOE District Superintendent, administrators across Maui, state level curriculum specialists, and the entire Hawai‘i Board of Education. Visitors include other stakeholders from outside of the educational field, including policy makers from community organizations, politicians, entrepreneurs, local arts organizations, and scientists. According to Pomaika‘i’s administration, these visitors regularly comment on the high level of student engagement and their complex problem solving through collaborative work:

They remark on how the arts challenge students in a variety of ways that are needed in our work force today-to see and think in different perspectives, to communicate with deeper empathy and understanding, to work collaboratively to solve problems. CEOs and managers from businesses and community organizations wonder why other schools aren’t integrating the arts when it’s clearly effective for developing the kinds of people they want to employ. Business leaders from San Francisco and New York who live on Maui part time have even invested in our arts integrated model, wanting to support our work and hoping other schools will follow. Retired scientists have also invested, saying Pomaika‘i’s innovation and obvious joyful learning of our students is an endeavor they want to get behind.

As a result of these visits by top ranking district officials, a different kind of shift has begun. For the past three years, HDOE sponsored professional development in arts integration, hosting large numbers (60-80) of educators at three to four events each academic year. These workshops engaged local and national presenters from the Kennedy Center to specifically address the evolving needs of classroom teachers across the state. HDOE and its partners have also initiated formal conversations between community arts organizations, leaders in the arts, and leaders in education to explore more ways to connect, share resources, and create a vision for

advancing arts education together. HDOE has engaged in arts partnerships at three schools selected by the President's Committee on the Arts and Humanities. These three Arts Turnaround Schools support whole-school arts integration informed by the Pomaika'i model. Finally, Hawai'i's Charter School Commission has approved Kamalani School, a new K-8 arts integration charter on O'ahu, which will open its doors in the fall of 2017, also inspired by the Pomaika'i approach.

This evolving appreciation for arts integration aligns with the long-term goals of Hawai'i's education system. Hawai'i is committed to improve student readiness for college, career and community. Studies focusing on college student achievement conclude that noncognitive factors contribute to college success rates, and that college admissions procedures might do well to attend to such factors (Delaney, Harmon, & Ryan, 2013; Noonan, Sedlacek, & Veerasamy, 2005; Schmitt, 2012). Grade point averages in middle school, often incorporating the effects of noncognitive factors, are early indicators of performance in high school. Academic behaviors are a better indicator for success or failure in the ninth grade than achievement test scores alone (Neild, 2009; Neild, Stoner-Eby, & Furstenberg, 2008). In short, noncognitive factors play a powerful role in preparing children for later success in higher education, jobs, and in society. Models involving whole school arts integration may very well set that success into motion.

While this discussion about the dynamics of academic mindsets, learning strategies, and social skills 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. This study is limited to the exploration of the phenomena of arts integrated learning for a general education population; further research into the experiences of students with disabilities is warranted. It is my hope to return to the eight families who participated in this study in three years as they transition into high school, and again in another four years as they transition out of high school. Do the noncognitive strengths sparked in the formative years have lasting power? What happens to students as they move into new learning environments that do not emphasize integrated arts learning? More longitudinal research may help us understand how early experiences with the arts influence the way a child might interact with the world later in life. Such information would inform educators as they make decisions about what should be taught in schools, how it should be taught, and what resources would best support students as they take on the challenges of higher education, employment, and citizenship within their communities.

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