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Dear Friends:

Building upon the success they have witnessed in the field, principals across the nation are adopting art-infused education as a schoolwide vision. Research documents that art-integration can have a transformative effect on schools by improving school culture and increasing student achievement. In addition to improved test scores and attendance rates, principals report increased family engagement and teacher collaboration when the arts are at the core of schools’ pedagogy and mission. Principals’ passion for art-integration is creating a movement others are eager to join.

Crayola and NAESP are thrilled to capture this passion in the stories of Creatively Alive grant-winning schools, each of which excels with innovative teaching and learning practices. Woven into these articles are voices of thought leaders who articulate a vision for the future that—with technology—is quickly evolving. Creativity, design thinking, and the deep insights students gain from the arts are more important than ever before. Thomas Friedman reminds us that only a decade ago, when he wrote *The World Is Flat*, “Facebook didn’t exist, Twitter was still a sound, the cloud was still in the sky, 4G was a parking place, LinkedIn was a prison, applications were sent to colleges, and Skype was a typo.” That world has drastically changed, as today’s students will live in a world we can barely imagine. It is the arts that gives them the skills they will need to shape this new world. Art-integration ignites the creative potential in every child and prepares them to become next century citizens.

Mike Perry
President and CEO, Crayola LLC
Gail Connelly
Executive Director, NAESP
A fundamental change occurs when schools design teaching around the problem-solving process. Instead of focusing on the memorization of answers that others have already figured out, Design Thinking schools challenge students to generate new solutions by using an iterative process that includes asking insightful questions and learning from mistakes.

For example, the first 20 minutes of each day at Young Audiences Charter School in Gretna, Louisiana, start with ART—an acronym for art reflection time. Whether it’s a painting, song, or poem—each classroom focuses on an artistic-inspired, daily exercise. Students respond to the art based on three prompts: What do I think? What do I wonder? How will this curiosity inspire my day? Students write responses and then share their ideas. Principal Folwell Dunbar remembers when students discussed Banksy’s street art and challenged each other on the role of community opinion in permitting graffiti; their conversation was as sophisticated and passionate as the public debate forums reported in *The New York Times* and *The Wall Street Journal*, Dunbar recalls.

“Let’s ask ourselves how we can develop confident, creative thinkers,” Dunbar said. “Design Thinking provides a framework that changes teachers’ and students’ mindsets. The best test scores come from classes that most completely embrace the Design Thinking process. More importantly, we see the innovative projects these students create—the real measure of success.”

**Big and Little Changes**

“We love the lively debates these artistic explorations spark,” explained Todd Shaffer, Young Audience Charter School’s art educator. “When kids jump into a painting and describe how it smells and feels for them to be in that scene, we move away from our community’s isolation and join a world that is rich with stimulation.”

How do classroom teachers learn to facilitate those art reflection conversations and build the Design Thinking process across the entire curriculum? Shaffer collaborates with them and builds teachers’ creative confidence. “Our principal has a deep commitment to co-planning time. The best art integration occurs when classroom teachers and art educators sit down together and build upon each other’s expertise,” Shaffer said.
What Is Design Thinking?

Design Thinking is a strategy for creative problem-solving that effectively builds critical 21st century skills and prepares students to be collaborative, inventive, and entrepreneurial. The process is both cyclical and iterative, requiring ideation, visualization, experimentation, discovery, and reflective assessment of solutions to real-life problems.

Although numerous models describe the steps in the Design Thinking process, the IDEA model is a succinct framework developed by a team of lead design teachers who participated in Art Education by Design, a community of learners supported by a grant from the National Art Education Foundation. The IDEA model focuses on four key steps: identify the challenge; define the resources/information needed; explore possibilities and create prototypes; and assess outcomes and plan improvements. Each step guides students through deeper understanding and mastery of cognitive problem-solving skills and productive habits of mind.

Design Thinking is less about drafting, measuring, and sketching and more about being empathetic, curious, and collaborative. It is a metacognitive, experimental, problem-solving process that involves risk-taking, critical thinking, and authentic assessment. Design Thinking focuses on teaching students how to learn, create, evaluate, and deeply understand in a relevant context. Immersion in this process develops the independent, innovative decision-makers needed for the future.

—Jan Norman, National Director of Education, Research and Professional Development, Young Audiences

Thinking about artists: At the beginning of each year, teachers name their classrooms after a favorite artist. Students learn these artists’ stories throughout the year.

Instructional rounds: Just like in the medical field, teachers learn from one another in rounds. They visit others’ classrooms, consult in a collaborative way, and use Design Thinking to help one another solve problems.

Solving Real Problems

At the heart of Design Thinking is an approach to problem-solving that is built around inquiry, reflection, and modification. Dunbar describes some of the units his students created:

• Thinking behind the design: Their galleries provide thinking context. The art is displayed with the essential questions that prompted the exploration, lists the cross-curricular standards, and most important, includes the artist’s commentary.

• Thinking about artists: At the beginning of each year, teachers name their classrooms after a favorite artist. Students learn these artists’ stories throughout the year.

• Instructional rounds: Just like in the medical field, teachers learn from one another in rounds. They visit others’ classrooms, consult in a collaborative way, and use Design Thinking to help one another solve problems.

Dunbar believes that the most powerful tool principals have to manage this type of teaching is the daily schedule. He redesigned the day to enable the Design Thinking process to take hold. “I built in time for the art teacher to co-plan, co-teach, and coach classroom teachers. Our student day is a block schedule, so we don’t interrupt children every 40 minutes to move from math to science or social studies. Teachers design robust interdisciplinary units and I give them large blocks of time for students’ deep immersion into significant projects.”

While the biggest changes Dunbar made were redesigning the daily student schedule and teacher-artist collaboration times, he points out that other little changes collectively have a large impact on a school.

• Vocabulary: “What we call the spaces and people in our building communicates what we value. It doesn’t cost anything to use a new vocabulary.” Dunbar calls the school’s hallways “galleries,” classrooms are “studios,” and students are “creative learners.” Every Friday they discuss their “creative achievements” and their parent meetings are called “celebrations of learning.”

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• Forming new civilizations as teams of city planners who must feed and govern their citizens;
Inventing an innovative New Orleans architectural style that respects the historic legacy and addresses environmental realities; and

Designing plans to save the eroding Louisiana wetlands.

Design Thinking starts with understanding the problem and considering many ways to solve it. Collaborative brainstorming around users’ needs informs both form and function of the solutions designed. “We ask students to look at everything around them—chairs, light fixtures, buildings—and consider the decisions the designers made,” Shaffer said. “This prepares them for the roles they’ll serve when solving their design challenges—what questions do we need to consider before we create solutions.”

**Elegant Fit**

About two years ago, Jennifer Hernandez, principal of Marietta Center for Advanced Academics in Marietta, Georgia, realized the intersection between the way engineers and artists create is similar and complementary. She hired design artist Kelly Karr because, “Design Thinking is the perfect blend of these disciplines. It fuels the innovative spirit, collaborative problem-solving, and sense of aesthetic that we might have missed if we stayed focused on STEM,” Hernandez explained. “Adding the artist lens helps students be more observant. Our students learn art is more than decorative and lives beyond museums. Its presence is felt in every aspect of our lives.” Karr teaches students to follow five steps as they integrate art and engineering:

- Ask insightful questions;
- Imagine possibilities;
- Plan collaboratively;
- Create; and
- Modify to improve.

Hernandez is passionate that “this cyclical process prepares students for the world they’ll encounter. Yes, the world needs more engineers, but this process isn’t just for engineers. This is a mindset, a life skill that prepares students for the future.”

**Make Disposable Mistakes**

The Design Thinking process encourages people to be fluid with ideas and reflective about what they could improve. Dennis Palm, principal of Weaver Lake Elementary School in Maple Grove, Minnesota, said he encourages students to identify and learn from their mistakes. Aimee Stahl and Lisa Feigenson, researchers at Johns Hopkins University, have studied how young children learn. They found that when expectations are defied and predictions are wrong, children focus more intently and learn more. Palm’s experience confirms the research. Mistakes spark curiosity and deeper learning.

Weaver Lake Elementary installed a “maker space” to give students an open-ended place to playfully explore ideas and materials. This studio integrates technology into the creative process. Students are using Makey Makey boards and Scratch coding as they play with ideas. Their curriculum leader, Karla Juetten, came to educa-
tion with a computer design background. She helps classroom teachers embrace the integration of Design Thinking and technology.

Palm’s recommendations to principal colleagues include a list of what he calls the “TMIs” that differentiate this maker movement approach from traditional teaching. He says principals need to help teachers avoid these TMIs: too much instruction, too many interruptions, and too much intervention.

Palm has found that this approach develops students’ perseverance. “Students grow to view mistakes as opportunities to improve. If we can keep kids from getting defeated by mistakes, we’ve given them a life-long, growth mindset.”

Change the Paradigm
“The Power of Change” is one of the Design Thinking themes students explored at Marietta Center for Advanced Academics. Fifth-graders wrote about the changes they wanted to see. Students used amazing technology that turned their voices into large-scale visuals that changed when they spoke. Children created a huge kinetic sculpture, inspired by Alexander Calder, where the images shifted as the light patterns changed throughout each day. The big idea that came from this multi-faceted unit was the children’s belief in themselves—as builders, makers, and change agents prepared to embrace and create change.

Palm and Hernandez offer the same closing advice to principal colleagues. “Empower your students and teachers, and step out of their way,” Palm recommended. Hernandez agreed: “As leaders, we need to humble ourselves. Set the stage for change and engage all the players. Teachers have as much voice in designing our school vision as I do. Children here are design thinkers who know they’re capable of making important decisions. Hire people who embrace ways to redesign education and let their expertise shine. That’s the way to design schools for the future.”

Cheri Sterman is director of education at Crayola.
What practical approaches can principals and teacher leaders use to successfully integrate the arts into their elementary schools? The recommendations in this article are the result of interviews with 32 national arts education leaders, each with 20 years of experience in arts education, including principals, superintendents, researchers, teaching artists, leaders in performing arts centers, education associations, advocacy coalitions, and funding agencies.

Common themes that emerged from these conversations focused on sustaining arts education in schools, integrating the arts into systemic change, helping teachers (arts educators, classroom teachers, and teaching artists) become agents of change, and identifying what the arts education community can do better as a field to further arts in schools.

Reflecting on the themes, concerns, and action strategies identified in these interviews, the following recommendations guide principals and teacher leaders to increase support for high-quality arts education programs.

1. **Create a school culture and environment of support that values the arts, sets goals for building arts programs, and monitors progress.** Consider appointing an arts leadership committee that includes individuals from within the school as well as from the community, including parents and community cultural leaders.

2. **Ensure access to resources for building quality arts education programs; do not accept the premise that the arts will be the first cut from the curriculum or budget.** The value of school district leaders who support the arts is unquestionable. It is often the belief in the arts among individual school leaders that ensures programs are not only able to survive, but to grow...
over time. While some schools have reduced access to the arts, many schools and districts have expanded arts programs and have included the arts in school turnaround strategies.

3. Provide shared professional development experiences for classroom teachers, arts educators, and teaching artists. Support integrating the arts into the identity and culture of the school through standards-based art integration within the curriculum and authentic arts assessment, ongoing collaboration, and a shared vision and investment in the school arts program. Consider the arts educators as the school’s chief creative officers, encouraging them to identify ways to infuse their work throughout the school.

4. Connect the arts to overall educational goals by embedding arts learning throughout the curriculum. Include art integration with STEM/STEAM initiatives and other schoolwide efforts to support creativity and innovation among teachers and students.

5. Develop content-rich partnerships with community cultural organizations. Expand resources and build communitywide understanding of, and support for, school arts programs.

The leadership of principals and teacher leaders in supporting the arts in teaching and learning is extensive. In their book Creative Leadership, Skills That Drive Change, Gerald J. Puccio, Mary C. Murdock, and Marie Mance explore research on the relationship between leadership and creativity. Along with Peter G. Northouse, they cite four basic components of leadership: it’s a process, involves influence, occurs within a group context, and involves goal attainment. “Transformational leaders focus on developing others to their fullest potential. Their goal is to change and transform others in a positive way,” they write.

Kathi R. Levin is a project consultant for the National Art Education Association. The interviews referenced were conducted for Levin’s chapter, “Arts Education: Systemic Change and Sustainability,” included in Arts Integration in Education: Teachers and Teaching Artists as Agents of Change (Intellect Books, December 2015).
Two people will not have identical experiences while watching the same movie or reading the same book because each individual brings personal background and history that shapes the experience. While there are consistent parallels in all arts-infused schools—vision, coaching, collaboration, and a culture that respects creativity—how a principal arrives at an epiphany on art-integration is always a unique, personal journey.

Principals Nina Unitas and Chad Chism reached the same destination—establishing an arts-rich school—but took very different paths to get there. Unitas brought her personal passion as a former art teacher to her principal position at Wylandville Elementary School near Pittsburgh. Her challenge was to convince her teachers of the power of art. Conversely, prior to joining Thomas Street Elementary School in Tupelo, Mississippi, Chism had never been a big fan of the arts. As a newly assigned principal, he entered this school as a skeptic—concerned about the amount of time “kids spent coloring.” Teachers were challenged to convince him otherwise.

Ancient Greek philosopher Heraclitus said, “You can’t step into the same river twice”—a powerful illustration of the nature of change. Just as no two principals’ journeys toward art-infused education follow parallel paths, every day within their schools is a step into that river, renewed with a fresh flow of energy. Here’s what these two principals had to say about their journeys.
What changed your view of the power of art to transform teaching and learning?

Chism: I remember the moment I did a 180-degree shift in my beliefs about learning. One of my first days at Thomas Street Elementary, I walked into a classroom and saw something I had never seen before in all my years as a teacher or principal: Kids were leaning forward, working together, excited to share ideas and help each other, engaged in figuring out real solutions to math problems. They couldn’t wait to show me what they were creating. The energy was palpable.

I walked into the room next door. I saw that same love of learning sparking in the kids’ eyes. They were building an art project in their classroom—planning together, debating which ideas to use, and were fully engaged. Wow—I had to do some self-reflection. My methods had been wrong, for all those years. Children don’t get excited about worksheets, memorization, repetition, and drills. They get excited about creating something.

How did you convince teachers who were slow to embrace art-infused education?

Unitas: When I came to this school three years ago, it felt like a heavy weight was hanging over everyone. Most conversations were about test scores. A joyous, unifying energy was missing. I knew art-based professional development would awaken teachers’ creative spirits.

It wasn’t difficult for me to convince teachers to integrate art across the curriculum after they experienced art-based PD. I didn’t tell them to infuse art—they came to their own conclusion that art-integration works, based on personal experiences in our workshops. At first, they remarked that they couldn’t remember the last time they personally created art. Soon, they were generating endless ideas on how to infuse art. It has to be a personal discovery.

Describe the collaborative partnerships you have with organizations that support your schoolwide art-infused education efforts.

Chism: Thomas Street Elementary already had a strong relationship with the art-integration organization, Mississippi Whole Child Initiative, before I became principal. I quickly came to appreciate what this statewide training organization does: provide professional development and recognition. Based on a set of rigorous criteria, teaching observations, and sustaining that high level of art-integration for at least three years, our school has achieved “Whole Child Model School” status. It’s really quite an honor. It means we’re a training site, and other schools within and beyond the state observe our classrooms to learn best practices in art-integration.

Unitas: We’re so fortunate. Pittsburgh is one of the most arts-rich communities in the nation. Gateway to the Arts leverages foundation funding to support our professional development and the artist residencies that supplement the incredible work of our art teacher. I urge principals to partner with community arts organizations.
and learn about matching grants and foundation support.

The second organization, Arts Education Collaborative of Pittsburgh, made a deep commitment to leadership development. They bring principals, superintendents, and district leaders together to build our creative capacity. Their Community of Learners for Arts Education program and Arts Education Leadership Academy empower leaders to be champions of arts education.

**In what ways have you blended art and kinesthetic learning/movement into the curriculum and staff development?**

**Chism:** Our teachers came up with the idea of studying visual artist Keith Haring, who expresses movement and cultural commentary in his artwork. But that was just the beginning. Our second-graders studied the solar system by painting and creating an original dance. Instead of memorizing planets, the arts brought the solar system to life—in ways students will remember for decades.

Movement is powerful. Kids learn by moving—hands-on and kinesthetic whole-body experiences. Our teachers know this, but their commitment gets rekindled when our professional development lets them be kids again and joyously create. Too many teachers spend years in schools without picking up a paintbrush, modeling a sculpture, or creating a dance. I urge every principal to engage teachers as creators. They will instantly connect with why hands-on learning matters to students.

Research [by Harvard University’s Amy Cuddy] showed that when a person holds a “power pose” or “victory pose” for a few minutes, it actually changes the brain chemistry and impacts confidence, positive sense of self, and optimism about the future. It’s a leadership skill we can teach students, helping them become aware of body language and using personal power poses to strengthen confidence. The acts of sketching each other and making sculptures help teachers and kids become better observers and builds their deeper awareness.

**Unitas:** One of our first creative workshops for teachers involved them looking at art, moving in “body phrases” that described the art, and then using body movement to act out a story about the art. It was fantastic. Teachers then extended this to their classrooms and students were performing original dances around Matisse’s artwork. Connecting whole body movement with art brings in another learning modality.

**What advice do you have for art teachers who aspire to become principals?**

**Unitas:** Art teachers are creative thinkers and artists. Creating art enables people to be self-reflective and connect with a deep personal passion, two of the most important mindsets for a principal. As artists, we immerse ourselves deeply into creative expression, an important communication skill. We visually convey messages and share carefully crafted work with others—ready to hear constructive criticism. That collaborative critique process is great preparation for becoming principals. As a school leader, I’m more empathic because I spent years as an artist in those collaborative critiques. Artists are intrinsically motivated. That taught me how to help others motivate themselves. Artists are experts at seeing the world. Every principal must have keen observation skills. Being an artist taught me how to make sense of patterns I was seeing that others often missed.

Art teachers’ expertise in the creative process prepares them to be great school leaders. Since the creative process embraces and inspires change, art educators are the change agents we need as next-gen principals.

As told to Cheri Sterman, director of education at Crayola.
Students born today will be 22nd century citizens. Their lives will be affected by global issues and interpersonal interactions that are difficult to imagine today. Futurists say there is one truth we can be sure of: our students will lead an even flatter globe and will need stronger “people skills.” What prepares them for this intensified global interconnectedness they will face? Art. It’s an amazing tool for building a deep understanding of self and others.

Start With Self-Awareness

Every interpersonal interaction requires a strong sense of self. Thinking about their emotions and social relationships, and then tying personal reflections to creative self-expression prepares students to manage interpersonal relationships.

Hamline Elementary School in Chicago redesigned its curriculum to put the child in the center. Just as literacy skills are built with a close read of text, this school uses art to do a close read of self. The inter- and intrapersonal skills that come from a child knowing how to read emotions and self-manage behavior are arguably as important as knowing how to read text.

“Our children face many challenges in their lives. One that we can teach them to manage is the ability to sense an emerging feeling,” explained principal Taina Velazquez-Drover. “They can identify and master the beginning of anger or frustration before it becomes outrage and loss of self-control.”

Social-emotional management strategies are taught using the arts. Kindergarteners sketch what feeling safe looks like versus being afraid. Third graders...
use dance, music, and movement to explore what agitation feels like, how to catch it early, and redirect it. Older children weave themes of empathy and others’ rights into history lessons of the Civil Rights era and current social injustice around the world. “It’s easier for them to imagine how situations impact others thousands of miles away after they really understand their own feelings,” said Velazquez-Drover.

**Art as a Study of Mindfulness**

Students today face many distractions. A new skill that didn’t need to be taught a generation ago is how to turn off clutter and be mindful of whom they are interacting with and what is occurring here, now. Park Forest Elementary School’s principal (or the title she prefers, lead learner), Donnan Stoicovy, calls this “being present.” The leader of the State College, Pennsylvania, elementary school explained why art is the ideal medium for teaching kids about themselves and others around them: “Artists are observers. They communicate emotion with a palette of colors and symbols that can be read by others. When art-making is collaborative, the interpersonal communication brings students to a deeper understanding of their classmates. It builds empathy, compassion, and the importance of really listening to and looking at each other.”

Park Forest Elementary used a sketchbook project that teachers called “Making Learning Visible.” This year-long visual journaling documented the evolution of students’ thoughts and feelings—and their thinking about their thinking. Their metacognitive process included explorations of poverty, inequality, fracking, and personal discoveries about the responsibilities citizens have to speak up in a democracy. The students chose their topics of inquiry and worked in pairs to get to know what sparked their partner’s sense of wonder.

“Students moved from being self-focused to really caring about what others cared about,” Stoicovy said. “They decided how together they’d amplify their voices on issues that moved them—creating motivational posters and the school constitution. The best part of mindfulness is figuring out what to do with an idea, and knowing that your idea could change the world.”

**Broadening the Lens**

As an International Baccalaureate school, Monarch Global Academy in Laurel, Maryland, is focused on preparing students for the globally interconnected world. Its interdisciplinary curriculum is built around six cross-curricular themes that are art infused, which every grade-level team explores for six weeks:

- Who We Are;
- Where We Are in Place and Time;
- How We Organize Ourselves;
- How We Express Ourselves;
- Sharing the Planet; and

Every subject from language arts to math, science, and social studies, and all art forms (visual and performing arts), are studied as part of these themes. Students choose the focus within the themes, and their projects include a global lens for every grade level in developmentally appropriate ways. Principal Donna O’Shea provided an example that brings the How We Organize Ourselves theme to life.

“This theme covers a range of topics around governance, community, and of course cross-cultural comparisons, which occur in every theme. When
our fifth-graders picked their project, they looked at provocations and propaganda. Art was the way they explored differences in multiple views of truth and how they could become convinced of something—not because it was true, but because others wanted to manipulate their view.” These students saw firsthand that art is more than a painting or drawing; it is a way of convincing others and manipulating beliefs. The higher-order thinking skills students developed in these art-infused thematic explorations will stay with them as memorable experiences.

Using the same How We Organize Ourselves theme, kindergarteners took a classic early-grade topic—community helpers—to a new level. “When our kindergarteners study firefighters, health care workers, and transportation drivers, they aren’t limiting their lens to a typical U.S.-centric or Western cultural view,” O’Shea explained. “They research and sketch what firefighting is like in a rural village with grass huts; teaching in a developing country with 60 children in a shack with a dirt floor and no books; and health care without ambulances or multistory hospitals. Sketches help them absorb what life is like across the globe. They quickly get a sense of universal needs and unique circumstances.”

**Global Connections Today**

While global connections are inevitably part of every child’s life in the future, don’t ignore the global interconnectedness many students have today. The mission statement of The Family School in Bronx, New York, states, in part: “Our students will graduate with the ability to achieve as learners and contributors in our increasingly multicultural, diverse, and complex world.”

Many of the students are first-generation, recent immigrants from dozens of countries, including Ben-gali, Sierra Leone, Ghana, Dominican Republic, and Columbia. Thus, the school developed an art-integration program based around the countries and cultures in its community. “We use the arts to help children connect with these countries’ traditions. Many of our children travel back and forth from their countries of origin and when they return to school we want to weave the arts they saw being authentically created by the village elders into our classrooms,” said principal Pamela Lee.

To help classmates connect with these experiences, The Family School uses traditional folktales, painting, quilting, music, and dance. Many of the folktales woven into the curriculum focus on lessons of understanding self and living in harmony with others.

While standardized, high-stakes testing is a focal topic today, the most challenging tests students face don’t occur in schools. Students’ lives are getting more complex and interconnected. Art deepens their understanding of self and others while providing a cross-cultural context that will help them navigate their future.

Cheri Sterman is director of education at Crayola.
Principals are increasingly aware of the need to partner with parents to make the long-term significant impact they both want for children, and that art is a great way to draw families and schools together. The principals of Pleasant Hill Elementary School in Missouri and Richard Edwards Elementary School in Chicago have used the arts to attract parents to their schools and strengthen the partnerships between parents and faculty.

“Art draws parents into our school, not only for the evening special events, but on a daily basis,” says Sue Herrera, principal of Pleasant Hill Elementary. “Art levels the playing field and makes school less intimidating.”

At Richard Edwards Elementary, parents are invited to help frame and hang children’s artwork and to help the dance and thespian clubs. “We’re an art-integrated school, so the arts are a magnet to anyone who walks in our door,” says principal Judith Sauri.

At both schools, faculty open the doors for parents to create art alongside their children. “This welcoming access to our art studio strengthens our partnership with parents,” says Herrera. Adds Sauri: “Involving parents in art-making has reduced the tension this community has historically felt.”

Parents as Arts Advocates
Sauri radiates with pride when she talks about how her school’s parents are incredibly articulate arts advocates. She credits their advocacy for getting a new $30 million commitment to renovate and expand the school, which includes a new music room and art studio. “It was parents’ passion for the arts that built the support for this investment,” Sauri says.

A sketch of a boat and a team of individuals rowing in unison illustrates Pleasant Hill Elementary’s vision statement, which explicitly states that the school partners with families to meet students’ needs. “We can’t achieve our objectives without them,” Herrera says.

Parents are key partners in the entire educational process, from shaping the school’s vision and contributing ideas, to making decisions and engaging in art-infused learning. Herrera explains that parents participate in project-based learning experiences to see firsthand the rigor art integration brings to other subjects. As a result, “parents embrace art
Parents as Partners
What could be more welcoming than an invitation to share fruit pie and conversation with the principal? During PIE (partners in education) nights at Pleasant Hill Elementary, parents are given the opportunity to be heard during informal conversations with the principal.

These conversations often get colorful, as temperatures rise from warm to heated topics such as Common Core and recalibrated grading. But Herrera says that the relationships with families are enriched by sharing honest feedback. “Various points of view inform each other and solidify our partnership.”

Parents as Leaders
The special relationship Sauri has with the parents in her school is because they are officially her boss. They conduct her evaluation annually and, every two years, vote to decide whether or not she remains as their principal. Because parents also evaluate the school’s educational programs and make key educational decisions, Sauri decided to provide leadership effectiveness training. The key competencies the training focuses on include:

- Understanding needs (with the big picture in mind);
- Identifying who makes what decisions and controls what funds;
- Prioritizing what to ask for and who to ask; and
- Organizing others so they speak with aligned voices.

“It’s exciting to see how our parents have built their leadership capacity,” Sauri says. The training challenges parents to consider the one thing they’d ask if the mayor walked into the school and how might that be a “different ask” if they were talking to the school board, an alderman, or a senator. “Knowing who controls what aspect of the educational system helps parents customize their ‘ask.’”

Parents as Learners
Leadership training is not the only subject taught to parents. Richard Edwards Elementary has a strong commitment to parents as learners. Eighty-five parents currently come to the school to take GED classes. Every day there are several parent workshops that range from parenting topics to deportation issues—and many of the workshops include art integration.

Parents and educators truly are partners in the educational process. When parents develop their leadership capacities and their appreciation of the power of art to transform learning, they help guide the vision and performance of the school that reverberates throughout the community.

Cheri Sterman is director of education at Crayola.
A new report reveals the benefits of the arts in low-performing schools.

By John Abodeely

The President’s Committee on the Arts and the Humanities (PCAH) landmark report, *Reinvesting in Arts Education* (2011), was the first federal report on the subject in more than a decade. Surveying the arts education landscape to draft the report, many opportunities became apparent, but two stood out. First, there was a growing body of impressive research showing the positive impact of the arts on student and school outcomes, including academic achievement, student engagement, and 21st century learning skills. Second, there was a vast equity gap in the United States, with high-poverty students drastically less likely to have the arts in their schools. Many of these students were precisely the type of learners that benefit dramatically from arts strategies—English-language learners, special needs students, and students who had given up on school and learning.
The data were clear: Students who needed the arts the most were getting it the least. The next year PCAH, in coordination with the White House and the U.S. Department of Education, launched Turnaround Arts, a national initiative that uses the arts to improve school climate and narrow the achievement gap in the lowest performing schools in the country.

The program was piloted in eight schools that were already receiving a School Improvement Grant (SIG) from the Department of Education, a federal grant that goes to the 5 percent lowest performing schools. Using the arts as a strategy, we zeroed in on some of the problems that plague underperforming schools: low student attendance, high volumes of behavioral referrals, lack of parental engagement, and limited use of local resources.

Consulting firm Booz Allen Hamilton and a principal investigator from the University of Chicago’s Urban Education Institute collaborated on a two-year research study to capture and compile data from the schools. Recently the evaluation report was released and we are thrilled with the results:

- Seven of the eight Turnaround Arts pilot schools improved reading proficiency rates.
- Six of the eight improved in math proficiency.
- All the pilot schools improved in either reading or math.
- From 2011 to 2014, the average improvement in math proficiency across our schools was 22.5 percent, while reading proficiency improved by 12.6 percent.

The researchers compared these Turnaround Arts schools with similar turnaround schools in their states receiving SIGs, as well as those in their school districts. They found that on average, these schools had higher rates of improvement in both math and reading than comparable SIG schools and district schools. In addition, researchers found that attendance went up and discipline issues went down dramatically in the bulk of these schools.

In just four years, the program has expanded exponentially. This summer PCAH Turnaround Arts will be in 53 schools in 15 states. Across the country, it’s demonstrating clearly that the arts aren’t something you bring in after you have solved your school’s problems; they are a part of the tool kit to help solve the problems. The arts aren’t a flower we give our kids when we can afford it, or to beautify a school. Instead, the arts are a tool to help build engaging, creative, effective school environments where everyone can thrive.

We hope the results of this program encourage administrators, school boards, and districts to make that investment for students in every school—incorporating the arts into their school effectiveness toolbox. For more information about PCAH and to download free copies of the reports, visit www.turnaroundarts.pcah.gov.

John Abodeely is the deputy director of the President’s Committee on the Arts and the Humanities.
Change today occurs at an exponential rate. The unique aspects of digital technology drive that incredible speed. In a world of cloud-connected software, people can constantly upgrade, innovate, and iterate. Even the physical world is rapidly changing due to the digital revolution. Capturing the attention of students is already difficult. So, what educational challenges and opportunities do we, as futurists, see looming around the corner?

**Screen Bloom**

Kids have become much more active consumers of media, and screen time has risen dramatically. According to market research firm ChildWise, children ages 5 to 16 spend an average of 6.5 hours a day in front of a screen, compared with around three hours in 1995.

Screens are now a gateway to interactivity, community, shared experiences between parents and children, and the interface to connectivity. Interacting with a screen is part of daily life, whether as a TV, a heads-up display, in the hand, or on the wrist. It’s safe to say that screens not only enable lifestyle; they are a lifestyle.

Communicating effectively with children will require growing awareness of their media consumption habits and using their media-savvy language. Voices of educators have a choice: either be increasingly aware, omni-channel present, and relevant, or risk being drowned out.

**Big Data and Little Data**

The idea of “big data” grabs all the headlines, but little data drives your customized and personalized world. This personalization is driven by PII: personally identifiable information.

The little data of PII is the basis of your online identity. Any information that can be used to distinguish you from another person can be considered PII. These data are then coupled with the advancing field of artificial intelligence or intelligent agents that use sensors and behavior to then offer up a logical programmed response. Intelligent agents such as IBM’s Watson, Apple’s Siri, and Google’s Now, will increasingly anticipate and stand at the ready to deliver continuous, relevant information based on the data each person generates.

We’re rapidly nearing an era when these agents will become ubiquitous and the impact on educators and education could be tremendous. In the classroom, artificial intelligence may bring powerful support. Imagine a tireless assistant who identifies which students need additional guidance based on cues from the quality of an...
in-class response. The long-term effect of artificial intelligence will be even more dramatic outside of the classroom as members of the workforce compete with technology for employment. The ability to think creatively will be a powerful distinction against the growing tide of computer competition your students will face in the labor market.

**Smart Toys, Smart Classrooms**

Tomorrow's kids will grow up in a world universally enriched by digital sensors and feedback. Large venues such as sports stadiums, theaters, and public facilities are now implementing digital upgrades to foster fan engagement and ensure the live experience can compete with digital media.

For example, Kansas-based Sporting Innovations wants to enhance live games by giving fans data to let them engage with players. Not only will students of the future increasingly expect fully connected environments, but the capabilities in these platforms will also dramatically increase the classroom instruction expectations and effectiveness.

Physical toymakers are exploring digital upgrades in the form of artificial intelligence and connected technology. These upgrades make the toys more interactive and, hopefully, more stimulating to kids' imaginations.

Tangible Play's OSMO, an iPad game, uses real-world objects to affect the gameplay in an app. As a result of innovations like these, children have already begun to see fewer distinctions between physical and digital play, often looking at the two worlds equally interwoven. Similarly, tech-enabled play and learning merge as children's virtual experiences offer them a new lens on how the world works and where their imaginations can take them.

**Preparing for Tomorrow**

Preparing today's children for tomorrow's challenges will ultimately require more than an understanding and adoption of new technologies. As technology becomes ubiquitous, students need the dispositions and flexible mindsets to use unique tools in competitive job environments. Work will be performed through technology platforms, and students who are ready to embrace change and try new technology will adapt well to the technology that is not yet built. Educators ask what can be done today to best prepare students for the unpredictable innovations they will face tomorrow. Building creative capacity is essential.

For the foreseeable future, creativity will be a key component in the lives of students. Futurist predictions about the increased importance of creative thinking and innovative mindsets are consistent with the Education Technology Standards written by the International Society for Technology in Education. First and foremost, these standards identify creativity and innovation as the mindsets and skill sets students need.

Understanding today's technology, with an eye on what's coming, is a precursor to helping prepare students for the future. Educators who explore these changes and embrace these trends will have tremendous impact on their students' tomorrows.

Brent Marcus is the vice president of strategy and innovation at SciFuture.

Lori H. Schwartz is the co-founder and chief technology catalyst at StoryTech.
Flipped learning—the concept of students serving as teachers to instruct, and learn from, their classmates—is revolutionizing the way students learn and engage with the curriculum. Several principals have embraced this flipped learner paradigm and have found unexpected benefits of deeper understanding and leadership skill-building. Interestingly, these principals report that their students-as-teachers initiatives began with an art experience. Based on the positive impact, it has been expanded to other subjects.

Within Classrooms
A first place to experiment with flipped learning is in a single classroom. Student projects can revolve around teaching, exchanging ideas with, or offering feedback to one another as a way to direct their own learning.

For example, students at Marshall School in South Orange, New Jersey, serve as docents who curate and explain the exhibits displayed in the school’s Marshall Museum to their classmates and teachers. “There is no better way for a child to take ownership of an idea and deepen understanding than to articulate thoughts and rationale to one another,” says principal Bonita Samuels.

Discussions among students are often initiated with the “turn and talk” approach, for which they follow a protocol of questioning and listening to each other. As an example, Marshall School art teacher Jessica Fong starts most lessons with...
artistic inspiration and urges students to look carefully and build a hypothesis around the artist’s intentions. She keeps her presentations very short to allot more time for students to share ideas with peers. These turn-and-talk conversations involve robust student-crafted questions, and answers need to be backed up with evidence and be rich in vocabulary.

“Our role is to inspire and empower students, not disseminate information,” Fong explains. “It changes the way lessons are structured. … We instill a passion for insightful questions. Students aspire to take their questions to a higher level.”

At the Libby Center in Spokane, Washington, personal journals are used as a vehicle to help students understand themselves and their peers. Principal Debra DeWitt believes that the most important role students have as teachers is to help others understand them. “When students express their visual voices they document their own learning and help others see their thoughts,” she says.

A simple journal can become a powerful tool to show how ideas emerge, evolve, and can be built on. Metacognition skills are built and strengthened through the process of translating a thought to paper and then taking time to reflect on that thought. “We want students to … be able to articulate [their thinking] to others,” DeWitt explains. “The journals became the springboard used to teach each other about themselves.”

Providing and responding to feedback is another way that students can increase their learning. Marshall School’s students, as young as 6 years old, are encouraged to offer their feedback to other students’ work, just like a teacher would provide. The goal is to learn from their peers’ insights. First graders respond to others’ work by attaching thought-provoking sticky notes.

“Our collaborative reviews are remarkable as they discuss the craftsmanship and ideas,” says Samuels. “It is common to overhear a child ask a classmate, ‘Have you considered…?’ This process extends beyond the art room. Once a child has cultivated a sense of leadership, it spreads into every aspect of the school.”

Another area in which leadership has been extended is in conflict resolution. Rather than always depending on an adult to step in, children at Marshall School are expected to resolve their conflicts by visiting the Student Led Solution Center. Students, alongside adult coaches who intervene only if needed, have assumed mediator roles. This K-2 school has found young children have an amazing capacity for resolving conflicts as well as teaching and leading peers.
“When we make it clear we are all learners, there is no stigma in admitting ‘I need help.’ Acknowledging that everyone is both a teacher and a learner is a life skill we’re proud to instill in our students,” Samuel says.

Between Grade Levels
Developing partnerships between teachers of different grade levels is another way to enhance the student-as-teacher experience. In East Palestine, Ohio, principals from an elementary school, middle school, and high school, along with their art teachers, partnered to plan collaborative projects where students teach students. Principals Carol Vollnogle and Kimberly Russo say the results exceeded their expectations.

Sixth graders were teaching 11th graders how to use the middle school’s 3D printers, Vollnogle reports. “Students learn that expertise is based on skills and attitude, not age,” she says.

Russo describes how amazed sixth graders were that 6-year-olds were mature, had a strong work ethic, and were highly creative partners. “They didn’t expect first graders to be thinking partners. They marveled at the capabilities of younger students they were responsible for teaching.”

For the partnership, students were involved in crafting rubrics to assess projects. They talked about standards before and after the student-led collaborations, and student teams taught each other how to address the standards in the planning and creative processes.

Some unexpected benefits from this collaboration were the leadership skills students acquired:

- Sense of ownership and responsibility to plan and evaluate projects;
- Knowing (and debating) what excellence looks like;
- Realizing that when teachers step back, other students have a tremendous capacity to guide them; and
- Leadership depends on mindset, not age.

Among Schools
Angie Brown, principal of E.T. Belsaw Mt. Vernon School in Mt. Vernon, Alabama, had an interesting dilemma that she resolved creatively. The small, rural K-8 school historically had limited access to art and cultural resources. Yet several schools, about 40 miles away in Mobile, are arts magnet schools. The possibility of a collaboration sparked Brown’s curiosity.

She thought to herself: “What if we used the Crayola grant to fund transporting arts-proficient middle and high school students to come here to teach our kids?” It turned out to be a great idea. The student-teachers taught Mt. Vernon School students painting, drawing, music, and drama, sparking students’ arts appetite and skills.

Students’ interest in the arts piqued so much that they started a video project to share with their student-teachers what they were doing. On the days that student-teachers couldn’t travel to Mt. Vernon, students connected remotely.

“This ignited something powerful within the kids,” Brown explains. “They became leaders and helped classroom teachers think about how to integrate the arts into all sorts of lessons.”

Whether they are students traveling to a rural school in Alabama, walking across their Ohio district campus or classmates leaning over a desk in Washington, students across the country are moving—into the role of teacher. Educators are stepping aside and letting these young masters write rubrics, mediate peer disputes, and jot notes with artistic feedback. Students are rising to the occasion and exceeding expectations as they teach other students.

Cheri Sterman is director of education at Crayola.

CLASSROOMS AS STUDIOS
WYLANDVILLE ELEMENTARY SCHOOL, EIGHTY FOUR, PENNSYLVANIA
Christina Unitas, Principal
When a former art teacher became principal, she worked with the Creative Leadership Team to transform the entire school into a model of inquiry-based, hands-on learning.

CONSTRUCTION AND CURATION
PLEASANT HILL ELEMENTARY SCHOOL, PLEASANT HILL, MISSOURI
Sue Herrera, Principal
Using the theme of Construction, the Creative Leadership Team built a depth of knowledge as students, teachers, and parents became curators of their own learning.

CULTURE, ART, AND THE COMMON CORE
THE FAMILY SCHOOL, BRONX, NEW YORK
Pamela Lee, Principal
Professional development and student projects integrated visual art, music, dance, and folktales from three diverse cultures in their community: Hispanic, West African, and Bengali.

DESIGN THINKING: AN INVENTIVE PROBLEM-SOLVING APPROACH
YOUNG AUDIENCES CHARTER SCHOOL AT KATE MIDDLETON SCHOOL DISTRICT, GRETNIA, LOUISIANA
Folwell Dunbar, Principal
The inventive process of Design Thinking reshaped their professional development and curriculum.

INQUIRY-BASED CONSTRUCTIVIST CURRICULUM
COMPASS CHARTER SCHOOL, BROOKLYN, NEW YORK
Brooke Peters, Co-Founder and Principal
In collaboration with the Whitney Museum of American Art and New York’s renowned Studio in a School program, teachers were trained to integrate art across the curriculum.

LEARNERS AS DOCENTS
MARSHALL SCHOOL, SOUTH ORANGE, NEW JERSEY
Bonita Samuels, Principal
This K-2 school is based on developmentally appropriate practices and the belief that children are visually literate—able to use visual clues to decode early reading and math concepts.

MAKE THINKING VISIBLE
PARK FOREST ELEMENTARY, STATE COLLEGE, PENNSYLVANIA
Donnan Stoicovy, Principal
Art-infused education helped this school emphasize mindfulness and explore the impact of relationships with others and the environment.

MAKER SPACE WITH RIGOR AND RUBRICS
WEAVER LAKE ELEMENTARY, MAPLE GROVE, MINNESOTA
Dennis Palm, Principal
Inspired by MIT’s Life Long Kindergarten approach to creative-analytical exploring, this school created a Maker Space where students brought an artistic approach to the engineering design process.

MULTIPLE TYPES OF LITERACY
E.T. BELSAW-MOUNT VERNON SCHOOL, MOBILE, ALABAMA
Angie Brown, Principal
Historically, this rural, Title I school had limited access to cultural and visual art resources. They established an in-depth partnership with performing arts schools and students became their teachers.
RELATIONSHIPS: CROSS-BUILDING AND CROSS-DISCIPLINE COLLABORATIONS

EAST PALESTINE SCHOOL DISTRICT, EAST PALESTINE, OHIO
Carol Vollnogle, Principal, East Palestine Middle School
Teachers from the district’s elementary, middle, and high school formed a districtwide Creative Leadership Team that focused on visual art integration across the curriculum, at all grade levels, across three buildings.

PARENTS AND TEACHERS ARE PARTNERS IN TRANSFORMING A SCHOOL
RICHARD EDWARDS ELEMENTARY, CHICAGO, ILLINOIS
Judith Sauri, Principal
This arts-rich school made a deep commitment to family engagement and transforming the school into a museum-like community center.

PARTNERSHIPS ENRICH PROFESSIONAL DEVELOPMENT
THE STUDIO SCHOOL, NORTHGLENN, COLORADO
Sharla Kaczar, Principal
Weaving the arts into Common Core standards and daily teaching practices is the Creative Leadership Team’s priority.

SCHOOL CULTURE AND SOCIAL-EMOTIONAL GOALS
HAMLINE ELEMENTARY, CHICAGO, ILLINOIS
Taina Velazquez-Drover, Principal
Arts-integration is used to foster a positive school culture and build self-awareness/self-management skills.

TEAM BUILDING THROUGH THE ARTS
MONARCH GLOBAL ACADEMY, LAUREL, MARYLAND

Donna O’Shea, Principal
The Creative Leadership Team provided a robust, year-long series of professional development workshops to help colleagues discover the power of the arts to enrich learning and relationships.

THE POWER OF CHANGE
MARIETTA CENTER FOR ADVANCED ACADEMICS, MARIETTA, GEORGIA
Jennifer Hernandez, Principal
The theme, The Power of Change, engaged teachers in student-directed, project-based, experiential learning centered on real-life problems and the design thinking process.

TURNING AROUND A SCHOOL WITH THE ARTS
BURBANK ELEMENTARY, SAN DIEGO, CALIFORNIA
Rachel Messineo, Principal
Art-integration has been key to turning around this school, previously ranked in the lowest 5 percent in California. Art has improved teacher instructional strategies, increased parental engagement, and elevated student achievement.

VISUAL LITERACY
STEPHENS ELEMENTARY, HOUSTON, TEXAS
Raymond Stubblefield, Principal
The Creative Leadership Team helped teachers build visual literacy skills and link art with written literacy.

VISUAL REFLECTION THROUGHOUT THE DISTRICT
LIBBY CENTER, SPOKANE, WASHINGTON
Diane DeWitt, Principal
The Libby Center supports 32 Spokane Public Schools. The Center’s Creative Leadership Team provided professional development for teachers on using visual journaling to identify individual learning styles and help students represent their thinking.

WHAT IF... RELUCTANT LEARNERS LEANED FORWARD
PATERNSON SCHOOL #2, PATERNSON, NEW JERSEY
Felisa VanLiew, Principal
The school’s interdisciplinary approach focused on hands-on projects that motivated students to ask essential questions and transform ideas into physical form.

WHOLE SCHOOL-WHOLE CHILD
THOMAS STREET ELEMENTARY SCHOOL, TUPELO, MISSISSIPPI
Chad Chism, Principal
Part of the Mississippi Whole School Institute, this school is weaving art across the curriculum on a daily basis.
Creative Leadership Grants
Apply today for a grant to fund an innovative, creative leadership professional development program within your elementary school.

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