

Principal

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Dear Friends:

Education leaders have much to celebrate as the impact of art integration on student achievement and engagement is becoming more widely known and embraced. Principals have seen the results: increased test scores and attendance as students lean forward, eager to express their ideas with art. Professional learning communities feel their collaborative energy increase as art integration builds creative capacity schoolwide.

While there are still many questions about the implementation of the new Every Student Succeeds Act (ESSA), there's good news in it for arts education. The term "core academic subjects" has given way to "a well-rounded education," and the arts still have a place at the table—music and art are listed among the components of a well-rounded education, defined as having "the purpose of providing all students access to an enriched curriculum and educational experience." The word "access" is key; it's a reminder that a major goal of ESSA and all its titles is the provision of an equitable education for all students.

Access to art is truly essential to a well-rounded education. The new law continues to set aside funding for the Arts Education Model Development and Dissemination program grants (AEMDD), which showcase innovations in arts education. And Title I, Title II, and Title IV funds are authorized to be used for professional development for the arts and art integration. Title IV, for the first time, explicitly identifies art integration as a specific strategy to effectively teach cross-curricular disciplines.

In states and local communities throughout the nation, voices of education thought leaders will shape the new education policies. We look forward to partnering with you to build awareness of art's role in schools' pedagogy and mission—making your voices heard to ensure visible and vibrant arts-enhanced learning for all students.

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Art as Personal Identity Narratives

Visual gateways to exploring self & others.



rt integration is a rigorous teaching strategy that helps students understand complex, multifaceted subjects. It's uniquely well-suited to strengthening students' social-emotional learning and creating personal identity narratives that expand their understanding of self and others. Children's personal identity narratives can-and shouldbe ambiguous and ever-shifting. The quest to see one's personal identity in new light, to shape and reshape it, and then to share it with others is a reflective process that impacts students' confidence and behavior. The art-rich iterative process of taking what is familiar, challenging it, and expanding it—to look at "who I am" in a new context—is a powerful way of developing a sense of self.

Exemplary educators have shared examples of using art-integration projects to explore personal identity issues—through visuals and creative writing—that result in students creating multiple narratives about who they are, where they come from, what has influenced them, and how others perceive them. This reflective work changes how students see themselves today and who they become. The imaginative nature of art enables children to move from the static here and now to transcend both time and location, and envision themselves in new ways. The historic and cultural nature of art enables children to explore traditions—their own and others'—to see how ancestral narratives and artifacts influence beliefs and dispositions. Implementing these strategies in your school can impact students' sense of self and well-being.

Our Past Affects Our Future

Apply the lessons learned from Theresa Vaisa, principal of Santo Niño Regional Catholic School, to your school. She has deep personal roots in the Santa Fe, New Mexico, community and its three historically prominent cultures: Anglo, Spanish, and Native American. She envisioned a creative leadership project for her faculty and students, "Art of Our Elders Helps Create Our Futures," knowing that respect of others' history would unfold as students studied the ancestral art forms.

Her students stepped back in time and imagined growing up in the 1800s as they walked through the reconstructed homes and simulated villages in local museums. They began to see recurring historical patterns, pointing to their similarities instead

of differences. "Our students realized that when functional objects became embellished, it represented special significance those objects had in the daily lives of ancestors," Vaisa explained. "Today, kids turn on a faucet to get water. Looking at the vessels each of the cultures used to gather water—the Pueblos, Spanish colonists, and Yankee traders or Anglo settlers, they began to appreciate what life was like hundreds of years ago and who lived on this land before us."

One of Vaisa's favorite crosscurricular art explorations is the Pueblo storytelling dolls. "The art forms of pottery and storytelling are both honored with these dolls. As students handcrafted their own versions ... they gain a deeper appreciation of their own and classmates' heritage," Vaisa said.

Reversing Stereotypes

Consider how the objectives of this project can be adapted to your school. Educators in Seligman, Arizona, wanted an innovative, uplifting approach to combat the misunderstandings that have been prevalent in their community for generations. For hundreds of years, the people who lived in this area had dismissed, disliked, distrusted, or disrupted the lives of others who lived near them. Seligman Elementary School principal Jeff Baker and his creative leadership team of teacher leaders considered how the arts could instill a sense of pride and respect for both the Native American and ranching cultures their students came from. They found that immersing students in the traditional visual art, dance, music, and storytelling of their elders helped dispel myths and reverse stereotypes.

"When we approached the objective through art, it enabled our students to feel good about where they came from, connect with who they are, become curious about and respectful of others' traditions," Baker explained. With the help of the Hualapai tribe





Students at Santo Niño Regional Catholic School explore the traditional art of storytelling dolls.



and rancher artists, students engaged in hands-on art experiences, and saw and heard performances that they had never been exposed to before. Baker described a scene from his schoolwide assembly that moved him deeply: "As the traditional music and dance began, students were asked to close their eyes to connect with the spiritual energy. They all did it-and we all felt something powerful. The past came toward us and brought students to a collectively respectful place. Days after the event, students both from the reservation and the rancher communities commented on how special it felt to be together in this schoolwide celebration of respect."

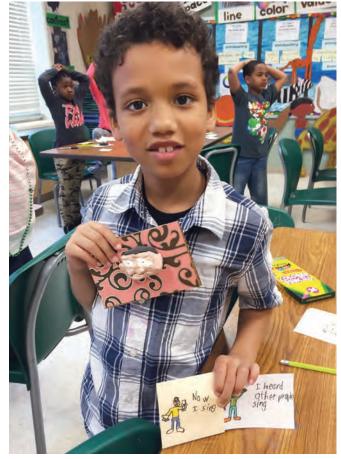
Baker offers advice to principals interested in using the arts to build a sense of personal identity and respect for others' cultural narratives:

- **Be patient.** It takes time and tenacity to puncture the myths about others. Art helps to paint a more meaningful picture of who these "different and too often distrusted people" really are.
- Establish trust with the community. You'll need to find out how each community protects certain traditions and what would or wouldn't be appropriate to share in school. Elders take very seriously the transmission of traditions to the next generation, so ask for their guidance and don't overstep boundaries.
- Be authentic. Each culture has a rich set of traditions that need to be researched and respected. For example, when students made storytelling necklaces and handcrafted animal beads, they were mindful of the attitude differences various tribes on the reservation have toward animal species. Some tribes view bison as the symbol of strength; for other tribes strength is symbolized by the hawk. Some students did not create owl or snake beads out of respect for what those creatures mean to their tribes.
- **Provide a balance.** Be inclusive of all cultures represented in your school.

ART AS PERSONAL IDENTITY NARRATIVES









Clockwise from top left: Coronita Elementary School, Corona, California; Rawlins Elementary School, Rawlins, Wyoming; North Summit Elementary School, Coalville, Utah; Vansville Elementary School, Beltsville, Maryland

Visualize Our Roles in Humanity

Author Maya Angelou often told her students that reflective journals challenge us to be our greatest self and unafraid to shine. Children step outside of today's constraints and rise above barriers when they reimagine themselves and the impact they can have on others. Mankind has always used portraits, masks, and other visual metaphors to inform sense of self and show others who we want them to see.

The role of art in expressing personal identity has been a focus of Vansville Elementary School in Beltsville, Maryland. Art teacher Virginia Bute-Riley and music teacher James Dorsey lead their school's creative leadership team. They have used music and artist identity books to focus students on questions of "Who am I? Where do I belong? What influences and represents me?" Students merge art and writing to juxtapose multiple contexts, exploring personal identity in powerful ways.

Bute-Riley outlined the way artist identity books are used across grade levels:

- Young students begin with realistic self-portraits, informed by mirrors. They move to family portraits that use shapes to communicate relationships. By de-emphasizing details and using inference techniques, children consider "what others could infer about me and the interpersonal relationships
- Students learn about artists'
 intentions and how art conveys
 meaning. Choice of colors, space,
 shape, and patterns communicate.
 Looking at art created in other eras
 helps students imagine "what if"
 they lived then and there—making
 a personal connection to history.
 There is an epiphany or "aha"
 moment when students interpret
 historic paintings and the life
 challenges depicted. This helps
 students build empathy and see
 themselves with a different lens.

■ Older students study masks from the Smithsonian collection.

They relate ancient masks to contemporary issues of "What do I present to others versus what isn't revealed, but lies within?"

Strong collaboration, led by the creative leadership team, closely links social studies to their art-integration identity narrative projects. Moving from literal, realistic portraits to symbolic and abstract helps students move to broader views of self. Vansville Elementary's principal, Tom Smith, credits Bute-Riley and Dorsey as helping students explore the many layers of personal identity.

Self-image is interwoven with what others think of us. It is rooted in traditions that children learn about themselves and others.

Visual explorations of self can build confidence and compassion. Identity is an ever-evolving narrative that can be shaped and reshaped by asking probing questions and looking beyond the current landscape. Art enables students to see parts of themselves and others that they never saw before—providing them with wings and new personal flight paths.

Cheri Sterman is the director of education at Crayola.







Meet Title I Goals Using the Arts

The California Alliance for Arts Education provides insights for principals.



esearch shows that the arts have a measurable benefit in the lives of students, from academic achievement to creative problem-solving to student engagement and perseverance. What's more, the benefits are disproportionately higher for students at the greatest risk of being underserved. For example, in *Doing Well and Doing Good by Doing Art* (2012), James Catterall describes that students in high-poverty schools who have access to the arts are five times more likely to graduate than those without, and those same students have much higher rates of civic engagement than their non-arts-participating peers. However, many schools still struggle to find ways to support these important opportunities for students.

Title I is the largest source of federal funding for education. Its goals are student engagement and achievement, parent and community engagement, and school culture/climate—all advanced with a deep immersion in the arts. Several states and cities have made an intentional effort to focus Title I resources to increase art integration as a teaching strategy. Insights from California are particularly helpful, inspiring school leaders to use the arts to help accomplish their Title I objectives.

The Arts and Education Equity

For the past four years, the California Alliance for Arts Education has been pursuing its Title I Initiative, an effort to clarify confusion around the appropriate use of Title I funds for arts education programs, and to provide tools to school leaders for planning and implementation. For the alliance, the initiative is not just about finding ways to provide more access to arts education; it's about providing a high-quality education for every student. That high-quality education must and should include the arts.

Federal Title I funds are dedicated to closing the achievement gap for the nation's most disadvantaged students. This is the largest amount of federal education funds distributed to the states. Title I spending in 2014 was \$14.5 billion overall; every school district receives at least some Title I funding. Schools with more than 40 percent low-income students can be designated "whole school" Title I, and for these schools, Title I funds represent a potentially powerful supplement to their annual programs. Whole-school Title I programs have a great deal of flexibility, and funds can be combined with other federal and state grants to maximize impact.

Those funds, however, do come with strings attached. Title I programs must demonstrate that they use research-backed effective strategies to meet any one (or several) of the four Title I goals: student achievement, student engagement, parent involvement, and school climate/culture. A compelling body of evidence shows that arts strategies have been effective in reaching each of those four goals.

In turn, federal Title I policy clearly allows schools and districts to include arts education in their strategies to achieve Title I goals. At the state level in California, however, the alliance found that there was a lack of clarity about whether and how the arts could play a role in Title I. That lack of clarity, coupled with a fear of reprisal—the potential revocation of funding for programs that didn't meet state or federal expectations—was keeping schools and districts from including arts education in their strategies for achieving Title I goals, or including them in a way that would draw no attention to those practices.

California's Title I Initiative

The intent of the Title I Initiative, therefore, was to develop and clarify a policy pathway—a shared understanding aligned across school, district, state, and federal levels of leadership regarding what is allowable when it comes to expending Title I funds on arts education. This pathway, when fully activated, could have





the effect of breaking barriers to access across the state for implementing proven, effective programming for some of the state's most under-resourced students.

The process wasn't rocket science. Progress is measured one step at a time. It's exciting to see results in school districts that are actually doing the work, and hearing conversations around Title I shifting from "Can we do it?" to "How do we do it?" The alliance's strategy has been to get the word out as clearly and as often as possible—and to empower others to have similar conversations. Following these recommendations could help your community access Title I funds for arts education:

- Start with school-level, district, and community leaders around the state talking about Title I goals and how art helps achieve them.
- It provides guidance based on the Title I yearlong planning cycle, with each stage of the planning cycle having its own dedicated resource "room." For example, the "Identifying a Strategy" resource room is dedicated to the Title I requirement of selecting a research-based strategy for a schoolwide Title I program. Use the research matrix that draws from the Arts Education Partnership's ArtsEdSearch, with more than 200 vetted studies on the impact of arts education, and maps the studies onto the four Title I goals.

MEET TITLE I GOALS USING THE ARTS







- Identify the most significant needs in your school community. Then use the research matrix to help select appropriate arts-based strategies to help meet those needs.
- Use case studies from other districts. For example, in the San Diego Unified School District—the vanguard of early action—Superintendent Cindy Marten set aside \$3 million of district Title I funds in 2014 for a pilot arts-integration initiative in 22 Title I schools. Marten tapped Caroline King, principal of a high-performing Title I arts magnet school, to spearhead the initiative, and they worked with a team to develop partnerships, capacity, and professional development to build a high-quality initiative.
- Use the short video clips on title larts.org in presentations at the state and community level. Building on that work, we are now partnering with the California County Superintendents Educational Services Association to pilot training at the county and district level this fall. The purpose of the training is to empower county and district leaders with specific tools to help them plan local initiatives, and build the alliances and relationships necessary to move from idea to implementation.
- Distribute the alliance's two-page flier, Four Things You Can Do to Start the Conversation about Title I and the Arts, with specific, suggested action steps.

With the passage of the new Every Student Succeeds Act, state and local advocacy is even more important and effective. Every educator and arts-in-education advocate has an opportunity to speak to the role of arts in education in general, and Title I in particular. The more school leaders know about the possibilities of Title I and the arts, and the existing examples of ongoing work, the more impact they will have within their own districts and schools.

Laura Smyth is lead consultant for the California Alliance for Arts Education's Title I Initiative.

Joe Landon is executive director of the California Alliance for Arts Education.

Communities Commit to Collaboration

Creating strong partnerships within & beyond schools.



ollaboration, a term increasingly discussed and woven into schools' vision statements and districts' plans, has sparked thought-provoking questions. What does effective collaboration in schools look like? How do educators explain the benefits of shifting from classic teaching, with an individualist focus, to the cooperative learning processes, where students share a vested interest in each other's learning?

The Partnership for 21st
Century Learning (P21) identifies
collaboration as one of the 4 Cs—
along with creativity, communication,
and critical thinking—essential for
college and career readiness. To
address educators' desire for deeper
understanding, P21 published a
research report, What We Know about
Collaboration. The report explains

that collaborative competence is not something students learn on their own without guidance, practice, and opportunities to observe adult role models collaborate. P21 defines collaboration as:

- Demonstrating the ability to work effectively and respectfully with diverse teams;
- Exercising flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal;
- Assuming shared responsibility for collaborative work; and
- **Valuing** the individual contributions made by each team member.

When schools intentionally focus on the P21 four-part definition of collaboration, and leaders articulate a clear expectation that interactions among teachers, students, and community members/parents will follow this definition, it changes the culture and outcomes for the entire learning community.

Teacher Collaboration: Scaffolding to a Higher Level of Partnership

Principals have found that art integration is a natural catalyst for increasing collaboration in schools—starting with faculty and organically spreading to students. By its nature, art integration is cross-disciplinary. So the most effective way to implement this teaching strategy is to bring together the expertise of art teachers, other subject matter experts, and classroom teachers.

Lusher Charter School in New Orleans credits its intense faculty collaboration to having on staff five

COMMUNITIES COMMIT TO COLLABORATION

art teachers (music, theater, dance, and visual art) and an arts-integration specialist, who use a collaborative decision-making process to craft the school's curriculum and help colleagues implement it. "Art integration is deeply embedded in our school's 30-year history," said principal Sheila Nelson. "We are very intentional about how teachers work together, helping them move up the continuum of collaboration." Nelson outlined the scaffold of collaboration:

- 1. Observation. The most basic level is "You teach—I watch" or "I teach—you watch." It is passive collaboration. Teachers can learn by watching a role model, but minimal growth results when they have limited interaction or partnership.
- 2. Parallel teaching. Teachers divide students into two groups; each teaches half then they switch. Multiple disciplines are covered, but not as powerfully as when teachers truly collaborate in planning and implementing, which increases their cross-disciplinary knowledge.
- **3. Partner teaching.** This is the highest level of collaboration. Optimal team teaching involves time to co-plan, co-teach, and co-evaluate. There is so much alignment that the classroom teacher and art teacher can finish each other's sentences, speaking comfortably about the standards in the other's disciplines.

Articulating the levels of collaboration helps faculty aspire to use arts integration with rigor and authentically meet all disciplines' standards.

"My job, as principal, is to give them time together," Nelson explained. "We bring in substitutes so the art and classroom teachers can have deep, meaningful collaborations." She said teachers use Google Docs to keep communication going outside of their face-to-face time together. "Tech collaboration can't stand alone as the collaboration tool, but it enhances and extends conversations that are rooted in personal meetings."

Lusher Charter School students embark on robust, cross-disciplinary projects such as the "Study of Change" and "Diary of a Journey." Students' collaborative work is inspired by the faculty role models they see constantly communicating, co-planning, and refining.



At the "Blair Fair" community celebration, scout leaders and Blair Dual Language School students design a sailboat challenge.

Art Integration Inspires Creative Connections With Families

When the creative leadership team at Coronita Elementary School in Corona, California, decided to use art integration to bring project-based learning to life in the Title I school, it involved parents. "We wanted to be relevant and systematic in using art integration. We offered artsinfused professional development for teachers and wanted to share these best teaching practices with parents," explained principal Kevin Kazala. The creative leadership team developed a rotating art box that goes home with a child for several days, giving the family time to have guided artful discussions and work on a collaborative art project.



The results far exceeded the school's expectations. "When children returned with the art box they were beaming with pride and excitement. They shared the family's art and provided oral presentations rich in art-based vocabulary," said Lysa Ashley, a member of the creative leadership team. "We've been surprised how seriously families took this and how engaged the parents have been—contributing to the planning sketchbook and the final art project."

When children take the art box home, they guide their family through the exploration, using the step-bystep photos. Family members use the sketchbook to plan their collaborative art project and write responses to the prompts that ask which artist inspired them and why, and what they learned about an artist and themselves during

this creative, collaborative project. "We are in awe of how impactful the family engagement has been around these art box projects," Kazala said.

Community Collaborations Reach New Heights

Innovative teaching and learning can take a village. Darrin Jennings, principal of Rawlins Elementary School in Wyoming, widened the lens to see who in their community could help overcome geographic barriers of rural isolation. "We are a two-hour drive from the closest community that has a significant size population, but we knew partners could help us close that gap," he said.

The school's focus on art integration led it to potential partners the school had not considered before—including the Wyoming Arts Council, Sinclair Oil and Gas, and the University of Wyoming's Art Mobile. Jennings outlined the principles he believes are important in growing strong community collaborations:

- Let them know how important their role is and elevate them—draw them into the cause without whining about what you don't have.
- Show community collaborators how much you value their contributions—they all report to someone and most organizations have a board. When you find a strong partner, let the boss know how much that person's work means to the community.
- Ask yourself, "What's the worst thing that can happen if we ask for help and they don't give it?" If you hear "not now," understand that doesn't mean never.
- Establish relationships. Let them see the great work you're doing. Build upon that over time. Community organizations that don't have funds to help your program may know about other sources of funding and recommend grants you can pursue.
- Understand the intersection between your needs and their goals. Start by learning about the potential

collaborative organization's objectives. Don't frame the conversation around your needs gap—talk about shared interests in community outcomes and how they will benefit from helping you.

This advice to principals who seek community collaborations is echoed by Donna Marie Cozine, principal of Renaissance Academy Charter School of the Arts in Rochester, New York. She received support from J.C. Penney and Young Audiences to host an Arts Integration Symposium that helps schools understand the transformative power of art across the curriculum.

"As an inner city school with 93 percent free and reduced lunch, we were convinced by the data that art integration increases test scores. We asked for the community's help with resources so we could 'double-down' on art integration and show others how it works," Cozine explained.

One of her favorite schoolwide arts-



integration units is "Change Begins with Me." This concept of individual impact works in student lessons and in teacher professional development. "We ask students to analyze data on student collaboration. Our third-graders did a school culture survey and used the information to strengthen collaboration among students. Students mirror the positive partnership mindset they see among our teachers and with community organizations," Cozine stated.

The power of collaboration to transform schools is punctuated by Miami University's teacher preparation program. They created a Study of



Transformation initiative to assess, over five years, the impact of art integration and early immersion of college students into classrooms to enhance their art teacher preparation program. Professor Stephanie Danker, principal researcher in the study, works closely with Ridgeway Elementary School in Hamilton, Ohio.

Danker reports that "One of the most significant and underutilized community collaborations for schools are their local universitiesparticularly those involved in teacher training. We worked with Ridgeway's principal, Kathy Wagonfield, to move the teacher preparation model away from a culminating student teaching experience. Instead we built the expectation into the next generation of art teachers that they will transform schools by collaborating, on a routine basis, with classroom teachers." Given the power of collaboration within and beyond schools, it's exciting to see how new teachers are being prepared to meet principals' expectations, ready to bring the collaborative mindset as they enter the field.

Cheri Sterman is the director of education at Crayola and serves on the executive board of the Partnership for 21st Century Learning.

Technology & Creativity Blend to Deepen Learning

Artistic processes & curiosity drive tech-enabled teaching.



he pressure to incorporate technology into schools feels intense. With 20,000 new apps added to iTunes each month, keeping abreast of new educational technology is overwhelming. Too often, technology's bells and whistles dominate discussions instead of planning around students' curiosity and capability and the school's curriculum goals. The U.S. Department of Education Office of Educational Technology crafted guidance in its report, Future Ready Learning: Reimagining the Role of Technology in Education. The recommendations begin by calibrating the focus on learningto engage and empower.

According to the guidance, "all learners will have engaging and empowering learning experiences in both formal and informal settings that prepare them to be active, creative, knowledgeable, and ethical participants in our globally connected society." Putting the student, instead of the technology, in the center of the discourse helps educators avoid the tempting distraction of focusing on what the technology does. Schools that have done this have shared their stories to inspire others.

Art Electrifies and Conducts

There is an electrifying buzz throughout North Summit Elementary School in Coalville, Utah. A symphony of moving sculptures ring, swing, and hum per students' directions. The kinetic art gallery is filled with student-designed bionic characters that move using hydraulics and magnetic levitation—all visualized and crafted by students in grades

K-4. Principal Lori O'Connor and her creative leadership team wanted to harness the energy of STEAM (Science-Technology-Engineering-Art-Math integration) to electrify learning. Their schoolwide, yearlong project, "Artistic Robots Showcase Creativity and Tech Skills," accelerated beyond expectations.

"The display of artistically designed student inventions is amazing. But what I'm most proud of is how children are using the scientific language and engineering process in their daily conversations and work. When I heard playground conversations around increased motion due to aerodynamic design, I knew they really got it and applied learning beyond the gallery project," O'Connor explained.

Students learned about hydraulics when they controlled water pressure

with syringes that moved their sculptures' handcrafted bionic arms. As they created and painted cars for their Maglev track, they talked about the color wheel and how complementary colors were similar to the way magnets repel or attract. But the learning was deeper than the inventions students created.

"This project gave students confidence in their own problemsolving abilities. I was thrilled to overhear a student telling a teacher, 'Wait—I think I have a better idea we should try,'" O'Connor said.

STEAM Ignites a Mindset

Bullis Charter School in Los Altos, California, is committed to innovative teaching and learning. When principal Wanny Hersey talks about STEAM, she contagiously radiates energy. "It's a process that makes learning more accessible to all students," she stated. "We can't think in silos when we create STEAM projects. Art informs the decisions, just like science and math do. Worksheets and classic tests are inadequate to assess learning that is this cross-disciplinary." Bullis teachers have embraced a mindset where students are challenged to solve big real-world problems and provide evidence of their thinking.

Their success is rooted in helping teachers serve as the facilitators who give students agency over their own work. Adults are very intentional in their intervention to expand, but not dictate, students' experiences. "Our real goals are long term—help students take responsibility for driving their own instruction, not be passive receivers of knowledge," Hersey said. "And STEAM projects ... are well suited to this philosophy."

For example, eighth-graders are designing schools of the future. They're exploring what could be the ultimate architecture and environment for learning. Students realized that learning centers can be metaphorical, not always bound to



Students at Bullis Charter School create scribble bots as a STEAM project that integrates the art and science concepts of force, motion, and balance.



TECHNOLOGY & CREATIVITY BLEND TO DEEPEN LEARNING

a classroom or physical building. To be authentic, STEAM projects must ignite a new mindset in students and teachers that shifts the view of power.

Playful Places to Fail Forward

Principal Kirk Felix credits art teacher Sandy Corson with the vision to take an Art Integration Maker Space concept to the next level at Jackson Primary School in Williamsport, Pennsylvania. Their Maker Space, dubbed "Tinkertown," is more than a collection of stuff; it's a true catalyst for art-infused, student-driven learning. "When a third-grader who had previously been too afraid of failing decided to take risks and try something he wasn't sure would work, I knew we had given the kids the freedom to tinker with ideas. Then when this same child reported his plans to go to MIT, where he would design flying shoes as a new way to travel, I knew we had given our kids a new way of looking at the future and their potential," Corson reported.

The school's motto—"If you build it, they will come. But if you let them build it, they will learn!"—is spreading. In fact, it caught the attention of the district's curriculum director and the local library. "We're shifting the focus from right answers to helping children come up with questions and using art to design prototypes," Corson explained. "'From Tinker to Thinker' is the hands-on approach to problemsolving that artists and designers use to solve real-world problems."

Students and Explorer Characters Bring History to Life

"Let the creative process and student interest drive projects—everything else flows from that," advised Justin Stephans, principal of Regency Park Elementary School. The Title I school in Pittsburgh, Pennsylvania, has a passion for merging creativity and technology to engage students. "Many educators underestimate the power









of creativity and ed tech together to enthrall students and enliven faculty."

Stephans said his school's journey was sparked by a Carnegie Mellon University Make-a-Thon. When his teachers shared with the rest of the faculty what they learned at the "Arts 'n Bots" professional development session, the electricity in the room was palpable. This led to Regency Park students creating and coding customized, handcrafted robotic Explorer characters. The project merged technology, art, language arts, and history as the characters came to life—telling stories from their history lessons.



"The era of teachers standing on center stage giving out content is over. Learning is more meaningful when students discover it in a real-world, hands-on context that uses their own creative ideas and technology," Stephans said. According to the principal, when the students learned how to code their Explorer characters for the history project, they were intrinsically driven to get the robots' facial expressions and nonfiction storytelling right, not to pass some memorization test. Coding robots was one part of the art- and technologyintegrated social studies-language arts project, not a stand-alone end goal.



Tech Tools that Are Truly Creative

Damian Sugrue, principal of Luther Conant Elementary School in Acton, Massachusetts, is also committed to having creativity drive the technology adoption in his school and credits his school's progress to art teacher Melissa Hayes. "When you have a highly collaborative, visionary teacher leader like Melissa, provide the support needed to help embed schoolwide."

For example, Sugrue provides substitutes periodically so that Hayes can co-teach and coach colleagues in their classrooms, showing them how to embrace the creative process and use tech tools that build creative thinking. Hayes recommended the following tech tools that align with the creative processes:

- Create. Crayola Animator provides a streamlined way of turning students' drawings into animations. The mannequin connects with the iPad app and enables students to design characters' movements as well as background scenes.
- **Present.** Chatterpix is great for merging physical and digital creating. Students paint or draw portraits, or make 3-D sculptures, mark where the mouth is and then record what the historical character or creature should say. Art comes alive with the child's own words.
- **Respond.** Thirty Hands turns student drawings or paintings into a slideshow. They can add voiceovers that document their response to others' work.
- Connect. Help students document the creative process by taking photos and videos of classmates during the hands-on, minds-on artmaking process. Filming peers helps students become astute observers of others' efforts and epiphanies. This deepens metacognition.

Using technology, in service of broader objectives, is clearly a theme within innovative schools and the *Future Ready Learning* report. Blending creative hands-on experiences with tech-enabled tools and resources is elevating project-based learning to a higher level—and simultaneously transforming roles of both teachers and learners.

Cheri Sterman is the director of education at Crayola.

Celebrating a Culture of Inquiry

On the quest for mindfulness & quality questions.



nnovative schools embrace inquiry as a game-changer. The elements of a culture of inquiry are celebrating diverse points of view, debating with civil discourse, and fostering a thirst for deeper understanding.

Inquiry culture permeates the entire school—teachers, students, and administrators all share a quest for personalized and collective learning.

In such schools, children, even at the youngest ages, approach knowledge with scholarly inquiry. They are asked to delineate between "what we know" versus "what we believe," and what evidence clarifies those differences. Students learn to confront inaccuracies, consult with each other, and develop subject matter expertise.

Quality Questioning

Art integration is based on the inquiry culture. This crossdisciplinary teaching strategy asks students to observe, be curious, and ask robust questions as they engage in the four artistic processes: create, present, respond, and connect. Shauna Kauffman, principal of Arnold Elementary School in Anne Arundel County, Maryland, focuses the entire learning community on art integration and quality questioning. Here, teachers start lessons with questions and frame the lesson outcomes as questions. They guide and assess students' inquiry process. Students help peers elevate the level of questions and investigative strategies. "Quality questions take students beyond initial observations. They ask about evidence and distinguishing features that could be identity attributions. Then questions expend into an elaboration phase."

"We start asking questions about the main ideas, then generate cross-discipline questions, investigate changes over time, and examine the topic from different perspectives. Art integration fits perfectly with this inquiry process," Kauffman explained. "For example, students step into a painting and see layers of information beneath the surface. Then students apply this inquiry process to help plan, make, and present their original artwork that documents insights they have learned."

An Improved Learning Environment

The learning environment changes—for the better—when schools embrace an inquiry culture. "Art integration and the related design thinking and visual problem-solving

strategies gave us the opportunity to reboot our school," said Aida Cruz-Farin, principal of Blair Dual Language School in Waukesha, Wisconsin. She outlined the mindset shifts that art integration and inquiry sparked in her teachers and students:

- Relevance. When students' questions drive the projects, there is no doubt the topics are meaningful to them.
- Empowerment. All children need to feel empowered—yet it is particularly important for students who've grown up in poverty to know they can make a difference. Inquiry-based projects that ask how students can serve others build empathy and strength. This shifts the paradigm from "being needy" to "being helpful," which empowers them.
- Agency. Students become agents of change. Teaching through inquiry and art integration is not an add-on program. It's an innovative teaching and learning strategy that is woven through the entire curriculum. Giving students "agency," or control over what they experience, changes their self-image from passive receivers to leaders who influence what happens to them.

As an application example of these elements, students at Blair Dual Language School create portfolios that document their personal "learning inventories." Each child explores "how I learn best," "what I'm most excited about," "ways I could improve my work," and "what I want to learn next"—fueled by their robust, personalized questions.

Bloomfield Elementary School in Skowhegan, Maine, also has seen changes since focusing on inquiry. Principal Jean Pillsbury challenged her faculty to reconsider the environment of inquiry, both as a physical setting and cultural context. Physically, they redesigned classrooms to create stations where students construct knowledge. The





CELEBRATING A CULTURE OF INOUIRY



relationship climate changed, too. Now teachers focus on listening to students, shifting the classic paradigm 180 degrees. Adults find out what intrigues students and that guides where they deepen investigation.

Pillsbury reported that "Visualization is a large part of this inquiry and knowledge-construction process. We use visual graphs, sketch ideas, and draw to help with knowledge documentation and classroom management transitions. We assess student understanding of concepts and vocabulary semantics from their sketches." This shift came out of "what if..." conversations with teacher leaders when they agreed that a strong culture of curiosity would support the growth mindset they want. The art-infused inquiry process is deeply rooted in their desire to give students ownership of their learning and another voice to express themselves.

"Many of our students are dealing with high levels of stress. We help them understand and gain control over the way emotions impact behavior and learning," Pillsbury explained. They teach kid-friendly neuroscience to help students understand how brains function and personal learning styles. They use authentic language and help children figure out what calming/focus techniques work for them. "Students know that good decisions come from leveraging the brain power that comes with controlled emotions. They know art can quiet them, give their emotions a safer voice, and get their mindfulness back on track," Pillsbury said. Children asking themselves what would help their minds function optimally is a powerful life skill.

"Meta"—a prefix from Greek meaning "beyond" or "at a higher level" helps explain the transformation these schools experience. Schools that focus on inquiry and art integration describe a metamorphic level of change in their teaching and learning. Massey Street Public School, in Brampton, Ontario, is a model school for the Canadian Ministry of Education and an observational training site for the Peel School Board.

"Inquiry is key to the artistic process. Our challenge is to develop a deeper consciousness in children," says principal Kathy Kozovski. "They begin to understand that artists innovate instead of imitate. When we teach children to inquire and showcase original thought, we are cultivating an innovation mindset that is more important than telling them answers to remember."

Cheri Sterman is the director of education at Crayola.

Uncover & Unleash Students' Creative Potential

Translating research into practice.



he importance of creativity to society is unquestionable. Research documents the contributions of creativity to our health, quality of life, and ability to learn. The significance of creativity in the workforce is highlighted in a 2015 Business and the Creative Economy article by Adam Okulicz-Kozaryn. He asserts that "creativity is the single most important ingredient for broadly understood progress (technological, economic, social, academic, and so forth)." In July 2013, the U.S. Department of Commerce announced that for the first time in our nation's history, the contribution of creativity to the gross domestic product will be included. We are in constant need of creative solutions to solve matters of national and international importance, from containing the Zika virus to finding sustainable ways to reduce our carbon footprint. These solutions originate from a vibrant exchange of ideas by communities of people who continuously share their original ideas and are open to the ideas of others.

Our students are poised to take their place in history. With the volume of information they process daily through multiple devices, the knowledge base from where they will draw ideas, solutions to problems, and inspiration

for novel inventions has increased dramatically during the past decade. In today's classrooms, educators inspire future technological and social innovators, artists, and policymakers. How can their creativity be fueled so they reach their full creative potential?

Forms of Creativity

Creativity can take several forms. It could be demonstrated in terms of actual behavior that can be easily observed. But creative potential, which is latent and is not easily observed, is as important. Creative potential can be inferred and even measured, thanks to advances in the creativity research, but it is not as obvious or objective as actual creative behavior. That being said, creative potential is much more important for educators than is creative action. That is in part because creative potential is so widely distributed.

Every student has creative potential—it is not something that only gifted children or only students with high grades have. In fact, one finding from Kenes Beketayev and Mark Runco's "Scoring Divergent Thinking Tests With a Semantics-Based Algorithm" is that students earning the highest grades are sometimes more concerned about correct answers than original ideas, and often students

earning only moderate grades have outstanding creative potentials that are not apparent in their schoolwork, indicating that grades are not at all correlated with creativity. If educators look for creative potential, they will see hidden talents in students who are only earning moderate, or even low, grades. Clearly, the ideal is to help students to fulfill and express their creative potential while learning what the curriculum is designed to convey. This is one way that the educational system needs to strike a balance, with both creative and academic talents appreciated and nurtured.

Creativity as a Process

It is best to look at creativity as requiring an iterative, multistage process. The new arts standards outline the creative process as create, present, respond, and connect. While these stages are intentionally represented by action verbs that emphasize a process approach, they each avoid a reliance on creative outcomes, which are the result of the creative process but not necessarily indicative of the effort students invest in the process. Nor is the outcome indicative of how well individual students do in the different stages of the creative process. A student could do well in identifying worthwhile tasks or problems, and having good ideas about them, but might need assistance with other stages-for example, presenting his or her rationale or implementing the idea. This student could be excelling in creative thought but, if only the end result is recognized, much of the creative effort will not be appreciated. Outcomes are not indicative of the underlying process.

Risk is a part of creativity, just as it is a part of any investment. The risk in the classroom occurs because creative ideas are original, and thus they are not easy to predict. An educator may pose a question and expect responses based on the current curriculum, but out of the blue a highly creative but unexpected idea is suggested by a student. Any time activities are open





enough to allow creative thinking, there is a risk that you might hear or receive something unexpected. Educators and students should tolerate the risk of the unknown as they embrace original thinking.

How to Assess Creativity

In *The Art of Thought*, Graham Wallas' early research on the creative process identified four stages: preparation, incubation, illumination, and verification. Preparation involves collecting materials and conducting research on the topic. Incubation is the quiet, reflective time when we let all the information "marinate" while we take a walk. Illumination is the "aha" moment when a promising idea emerges, followed by the verification stage during which time we test the idea and make sure it works.

The process is recursive. It is important to know that these stages exist as we determine the most appropriate ways to assess creativity at each stage and under what circumstance. Assessment should distinguish between presented problems and discovered problems (the latter being more strongly tied to creativity), and between activities that encourage divergent or convergent thinking. The former is indicative of creative potential. While convergent thinking is used when students deal with questions that have correct answers (or tasks that have one correct end result), divergent thinking questions and tasks are open-ended. There is no one correct answer; there are many possibilities. This is what allows divergent and original thought—the openness to explore, play, experiment, and think for oneself.

Every subject taught in our educational system offers opportunities for divergent thinking, and a recent study focused on the impact of the arts on student creativity and engagement. The study, "The Effects of Arts-Integrated Education on Title I and Students in Low-Income Families" by Ivonne Chand O'Neal, found that compared to students in







more resourced school environments, Title I students participating in the arts showed higher levels of student engagement, which was defined as the degree of attention, curiosity, interest, and passion that a student shows when he or she is learning or being taught. Title I students participating in the arts also attained higher positive challenge scores, indicating that they more often coupled a challenge with a passion or interest to yield greater likelihood of a problem solution.

Creativity Strategies for Educators

There are, in fact, methods designed to fulfill creative potential. Here are five.

- 1. Personalize. Begin the school year by asking students to make a list of their top five passions, activities, pastimes, or teams. Incorporating items from these lists throughout the school year will keep students engaged and offer on-the-spot options for topics of further exploration.
- 2. Super-Charged Seeing (process focus). Ask students to view an image and write down what they see. In what way does it tell a story or record history? How could it be used as a tool for scientific discovery or exploration? This type of activity heightens observation skills, encourages students to think divergently, and encourages them to shift perspectives by examining multiple viewpoints in our increasingly visual culture.
- 3. Find Three Ways (process focus).

 Ask students to generate a realworld problem that they want to
 solve. They must generate three
 ways to solve the problem. Feel free
 to place a condition on one of the
 ways. For example, one way must
 include a robot or a block of ice.
- 4. The Invention Game (process focus). Pick a real-world challenge. Ask students to devise and sketch an invention that incorporates five steps to accomplish the task. What if money and resources were

UNCOVER & UNLEASH STUDENTS' CREATIVE POTENTIAL





- unlimited? What is the scale of this invention? Could it be massproduced? What would your online jingle or print advertisement be to market your invention?
- 5. Notice, Wonder (process focus).

 Invite students to read a short paragraph, view an image, or listen to a piece of music that connects to the topic of classroom discussion.

 Ask them to list what they notice.

 Next, ask them to list what the passage, image, or musical selection made them wonder.

There are times when our students simply need to be reminded to be creative. A study we conducted in 1992 provides evidence to illustrate this point. "Problem-Finding Skills as Components in the Creative Process" examined the effect of explicit versus standard instructions on student creativity using a divergent thinking task, which is indicative of creative potential. Students were randomly divided into two groups. One group was asked to generate solutions to real-world problems that were creative, and to give solutions that no one else would think of. The second group was simply asked to generate solutions. Interestingly, students instructed to be creative generated responses that were significantly more original and creative than students in the standard instruction group. These findings clearly underscore that each of our students has creative potential. Strengthening their ability to practice strategies for creative thinking keeps them cognitively flexible and prepares them for a future filled with tremendous opportunity.

Ivonne Chand O'Neal is chief research officer of creativity testing services and co-editor of the forthcoming Arts Evaluation and Assessment: Measuring Impact in Schools and Communities.

Mark A. Runco is a distinguished research fellow for the American Institute of Behavioral Technology and Research and a professor at the University of Georgia, Athens.

Innovative Ideas From the 2015-2016 Champion Creatively Alive Children Grant Winners

Art 'n Bots

Regency Park Elementary School Pittsburgh, Pennsylvania Principal Justin Stephans

Students designed, animated, and wrote scripts for customized robot actors, combining art and technology. The creative leadership team, in collaboration with Carnegie Mellon University and Pittsburgh Create Lab, provided professional development on student-directed teaching strategies.

Art of Our Elders Helps Create Future

Santo Niño Regional Catholic School Santa Fe, New Mexico Principal Theresa Vaisa

The creative learning team focused on appreciation of the cultural and artistic heritage of the school's Santa Fe community and provided art-based professional development for faculty.



Artistic Habits of Mind

White County Central Elementary School Judsonia, Arkansas Principal Beverly Froud

This school's creative leadership team increased colleagues' participation in arts integration via in-depth professional development and teachers' Habits of Mind to welcome the iterative and messy nature of creative experiences.



Artistic Robots Showcase Creativity and Tech Skills

North Summit Elementary School Coalville, Utah Principal Lori O'Connor

In collaboration with the Beverly Taylor Sorenson Arts Learning Program, this school's arts leadership team merged art, engineering, and technology into a STEAM program, co-teaching with classroom teachers

to help students understand how the

Arts Happening

world works.

Lusher Charter School New Orleans, Louisiana Principal Sheila Nelson

Solving real-world problems, exploring social justice issues, and building empathy were the priorities for this art-integration school, which prides itself on being on the "cutting edge" of instructional best practices.

Beyond Stereotypes—Both Art Cultures Respected

Seligman Elementary School Seligman, Arizona Principal Jeff Baker

The creative leadership team brought together the arts from the Hualapai Native American Reservation and the rancher community to build understanding and respect. Their art provides a voice and common ground.

Community Commits to Collaboration

Rawlins Elementary School Rawlins, Wyoming Principal Darrin Jennings

This rural, Title I school, located more than two hours from the nearest city, used art partnerships to help overcome its regional isolation. It worked with the Wyoming Arts Council, the University of Wyoming's Art Mobile, and the Artists Across Wyoming program to mentor teachers in the arts.

Creative Arts School

E.M. Downer Elementary School San Pablo, California Principal Marco Gonzales

This school shifted its vision and transformed into a Creative Arts School, reframing its professional development, instructional strategies, and assessment to become artsintegration pioneers in the district.

Creative Confidence

Bullis Charter School Los Altos, California Principal Wanny Hersey

In partnership with the Santa Clara County Office of Education and the county's visual and performing arts director, teachers and students built creative confidence, problem-solving, and innovation skills through art integration.



Curriculum Maps and School Culture

Renaissance Academy Charter School of the Arts Rochester, New York Principal Donna Marie Cozine

This school's creative leadership team infused the arts into every aspect of the curriculum and school culture. The team built units of study and thematic curriculum maps that explicitly show connections between the arts and every content area that is taught—emphasizing common art-based language and the creative processes.

Environment of Inquiry & **Art Integration**

Bloomfield Elementary School Skowhegan, Maine Principal Jean Pillsbury

The creative leadership team developed a three-year plan for building teachers' creative capacity, coaching colleagues and supporting classroom teachers as they embraced art integration schoolwide.

Expressing Personal Identity

Vansville Elementary School Beltsville, Maryland Principal Tom Smith

Building teachers' creative capacity is this school's priority. It uses art integration as the teaching strategy to cultivate students' self-expression, personal identity, and cultural understanding.

Growth Mindset

Blair Dual Language School Waukesha, Wisconsin Principal Aida Cruz-Farin

Growing students' and teachers' commitment and capacity to persevere and solve problems is a mindset this school embraces. Teachers received professional development on design thinking—urging them to experiment, innovate, collaborate, evaluate, and learn from mistakes.

Longitudinal Study of Transformative Initiatives

Ridgeway Elementary School Hamilton, Ohio

Principal Kathy Wagonfield

This school participated in the Miami University Art Education Department's Study of Transformative Initiatives, which is an innovative, preservice teacher-prep program that provided creative coaches for every classroom.

Mindfulness and Literacy Taught Through Art

Massey Street Public School Brampton, Ontario Principal Kathy Kozovski

When the Canadian Ministry of Education asked this school to increase literacy skills in its high-risk community of English-language learners, the school chose art integration as the teaching strategy. It helped children become mindful while creating and presenting artwork, resulting in deepened communication skills.

Project-Based Learning Merges Art and Common Core

Coronita Elementary School Corona, California Principal Kevin Kazala

The creative leadership team engaged families and teachers in learning how art, creative processes, and Common Core come together through lively project-based learning experiences. Children can borrow "creative kits" from the school's lending library to create projects at home.

Quest for Quality Questioning

Arnold Elementary School Arnold, Maryland Principal Shauna Kauffman

Already involved in art integration, this school increased the rigor in its art-rich classrooms with deeper thinking and more complex creations. Focusing on quality questioning, the principal's walk-throughs engaged students in art-integration inquiry.

Teachers Training Teachers

Savoy Elementary School Washington, D.C. Principal Donyale Butler

As one of the President's Committee on the Arts and Humanities' first eight Turnaround Arts schools, Savoy has veteran teachers who embraced art integration as a teaching strategy to build literacy and math skills and student engagement. Now they are sharing insights with other district educators.



Technology that Facilitates Creativity and Collaboration

Luther Conant Elementary School Acton, Massachusetts Principal Damian Sugre

While technology has permeated life, educators are searching for ways to use it to stimulate creativity and collaborative projects. This school's creative leadership team provided professional development and team teaching and coaching for more effective integration of art and ed tech.

Tinker Town—Where Curiosity Drives Curricula

Jackson Primary School Williamsport, Pennsylvania Principal Kirk Felix

What if teachers considered their most important role to be "learner"? What if they thought more about good questions than right answers? This school's creative leadership team served as a catalyst for an authentic model of learning, giving students a voice and choice, and letting curiosity drive the curricula.



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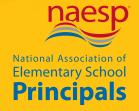
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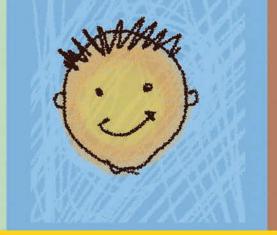
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