Five Arts Disciplines:
Dance, Media Arts, Music, Theater, and Visual Arts
A Collection of Insights and Resources from the Arts in Education Program

AIE Newsletter Issues — April 2016 to April 2017
• Arts in Education Model Development & Dissemination Program
• Professional Development for Arts Educators Program
• Arts in Education National Program

OCTOBER 2017
ARTS IN EDUCATION PROGRAM
U.S. DEPARTMENT OF EDUCATION
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PREFACE

Between April 2016 and April 2017, the Arts in Education (AIE) program released five quarterly newsletter issues that explored the five arts disciplines — dance, media arts, music, theater, and visual arts — inherent in current AIE grantees’ projects. Each issue contained a feature article by a noted expert in the specific arts discipline that brought important research-based understandings to the discipline’s instruction and integration with other core academic subjects. The features also provided insight to the goals, outcomes, and products of Arts in Education Model Development and Dissemination (AEMDD) and Professional Development for Arts Educators (PDAE) projects “spotlighted” in each issue.

Additionally, interviews with key contributors to the 2014 National Core Arts Standards provide helpful insights as to the motivations behind the first revision of the voluntary national arts standards since 1995, essential differences in the two sets of standards, and suggestions for use of the new standards in P-12 classrooms. Among the significant changes is the creation of media arts standards, establishing first-time autonomy for this 21st-century arts discipline.

Finally, for three of the arts disciplines — dance, music, and media arts — resources available from the Arts in Education National Program grantee, the John F. Kennedy Center for the Performing Arts, offer helpful arts integration “how-to’s” and ideas for lessons and activities available on ArtsEdge, the Kennedy Center’s free digital resource for teaching and learning in, through, and about the arts.

As we completed the five-issue series, the idea of a compendium emerged as a way to efficiently gather this valuable knowledge of arts discipline experts and national standards authors, as well as the illustrative narratives about 10 AEMDD and PDAE grantees. We think the collection will be invaluable for our grantees, other current newsletter subscribers, and those who access this publication on the AIE web site at https://arts.ed.gov/#program.

We invite you to subscribe to the quarterly newsletter here and visit the AIE website often.

–THE ARTS IN EDUCATION TEAM

October 2017
**THEATER (APRIL 2016)**

**FEATURE ARTICLE: STAGE RIGHT**

by Lenore Blank Kelner, Teaching Artist and Author

Stage right is a theater term that designates the left side of the stage from the audience's viewpoint. When an actor moves across the stage, from stage right to stage left, the audience senses strong purposeful forward movement—movement toward a goal. It is an appropriate metaphor for what drama/theater can achieve for educators and students in our schools.

This article examines the benefits of using drama/theater in the schools for students in grades PreK-12 and provides some “stage direction” on best professional development practices for classroom teachers, theater specialists and teaching artists. These practices are designed to help educators and, in turn, students, to reach their full potential.

**The Benefits of drama/theater: Why drama is so “right”?”**

Drama/theater provides students with authentic opportunities to:

- Develop oral language skills that are foundational for reading and writing in any subject area. This is key for all students but essential for students with limited language proficiency and for English language learners.
- Gain a “closer read” of a text. Stepping into the shoes of a character allows students to:
  - Experience different perspectives, settings/time periods, cultures, processes/cycles
  - Embody characters’ traits/motivations
  - Infer dialogue
  - Experience the purpose, theme, and/or message of a text
- Read and re-read/revisit a text for purpose, understanding, expression, clarity, and fluency.
- Develop and practice writing skills as they:
  - Compose dialogue orally or in writing
  - Use plot elements when analyzing/composing scripts
- Acquire essential **21st century learning skills** such as:
  - Learning and innovation skills
    - Creativity and innovation
    - Critical thinking and problem solving
    - Communication and collaboration
  - Life and career skills
    - Flexibility and adaptability
    - Initiative and self-direction
    - Social and cross-cultural skills
    - Productivity and accountability
    - Leadership and responsibility
- Gain self-awareness, self-control, self-esteem by providing opportunities for students to:
  - Risk in a safe space
  - Share ideas and know all voices are valid
  - Be an essential part of a vibrant community
  - Speak with expression and clarity in front of others (one of the top five greatest fears)
  - Explore a possible career path.

“Integrating drama has transformed my students. They are totally engaged. For my ELL students—it is the only way to teach.”

—Kindergarten teacher, Santa Rosa, Calif.

“When you read, you think you get it. But when you do drama—you really get it!”

—Eighth grade student, Sousa Middle School, Wash., D.C.

“My child has had trouble making friends. When I saw him center stage, waving the flag with the cast holding him up, I wept. My son had found his place.”

—Parent, Blake High School, Montgomery County, Md.

“Reading and writing float on a sea of talk.”

—James Britton, educator, University of London
These authentic opportunities make drama/theater a vital component for an education program of excellence.

**How drama/theater is implemented in schools: The “right” fit**

There is a continuum of how drama/theater is implemented in schools.

**Preschool to second grade**

As reflected in the National Core Art Theatre Standards, drama, an improvised art form, is the focus for students in preschool through second grade.

Drama, especially as it is used in classrooms for learning purposes, exists for the benefit of the participants. Although it uses many theater terms and conventions, its focus is on the process of the experience for students and teachers, not on a product produced for others.

Theater, on the other hand, is a disciplined artistic experience in which artists work and re-work the same material with the goal of performing it perfectly for an audience. (A Dramatic Approach to Reading Comprehension, Kelner and Flynn, Heinemann, 2006)

The National Core Theatre Standards further refine the definition of drama by citing examples such as: dramatic play or a guided drama experiences (process drama, story drama or creative drama, etc.).

Some examples of using drama in the PreK-second grade classroom include:

- **Dramatic Play**—Children spontaneously assign roles and enact familiar events
- **Creative Drama**:
  - **Story Drama**—Students enact stories through improvisation
  - **Role Drama**—Students take on roles of characters, objects, scientific processes/cycles, or historical figures
- **Process Drama**—Teacher and students take on roles and explore an issue, story, or problem episodically.

The standards suggest that after students participate in a drama they reflect on the experience by articulating preferences and making connections to other art forms and their lives.

**Grades 3-12**

In grades 3-12, The National Core Theatre Standards ask students to explore both improvised and scripted texts written by playwrights or devised by students. Students gradually gain proficiency in acting technique, staging, technical elements (set, costume, lighting, props, etc.) responding/critiquing and making connections between theater experiences, other art forms and the world. The focus through these grades gradually becomes theater—that is, performance for an audience. By high school, theater is usually offered as an elective subject with performance for an audience as a key goal.

Some examples of using drama/theater in the grade 3-12 classroom include:

- **Role Drama** - students are interviewed as they enact characters/historical figures
- **Planned Improvisations** - students create scenes that are modern versions of classic tales, improvise cycles in science or historic events
- **Process Drama** - teacher and students take on roles and explore an issue, story, or problem episodically.

**Scripted Experiences**:
- Writing and performing an original monologue
- Rehearsing and performing a scene(s) from a play
- Composing and recording a mystery podcast.

**Theater arts integration**

When objectives based on state standards or The National Core Theatre Standards are integrated with objectives from other curriculum areas, this is called arts integration. Below is the definition of arts integration created by The J.F. Kennedy Center for the Performing Arts in 2009:

*Arts Integration is an APPROACH to TEACHING in which students construct and demonstrate UNDERSTANDING through an ART FORM. Students engage in a CREATIVE PROCESS which CONNECTS an art form and another subject area and meets EVOLVING OBJECTIVES in both.*

Drama/theater integration can occur at any grade level and, as indicated in the definition above, with adequate professional development, can be used as an ongoing teaching approach.

**Professional development: Getting it “right”**

Drama/theater can be implemented in the schools by a classroom teacher, a theater specialist, or a teaching artist. The professional development needs for each vary, yet there are a few common threads for all.

**Professional development for classroom teachers**

The most effective professional development models focus on the transfer of knowledge and skills and the gradual release of instruction to the classroom teacher over time. In order to effectively use drama/theater in the classroom, teachers (who are non-theater specialists) need to understand:

- **Drama/Theater Basics**—Knowledge and skills of the art form (some basics include: the actor’s tools and skills,
improvisation versus scripted work, use of space, collaboration, etc.) If the classroom teacher wants to integrate drama/theater with other academic subjects, then a deeper knowledge of drama/theater basics is necessary since arts integration asks teachers to write and assess “evolving” (scaffolded) objectives in the art form as well as in another content area. (See definition above.)

- **Developmentally appropriate application** of the art form that reflects the scaffolded approach outlined in The National Core Theatre Standards.
- **The deep and authentic connections** between drama/theater work and other subject areas, which is essential for arts integration since connections to other subject areas are integral to the process.

**How to:**
- Facilitate drama/theater in the classroom effectively;
- Modify the drama/theater work for specific student populations (including students with special needs, English language learners, etc.);
- Respond, reflect, and/or assess the drama/theater work; and
- Create original drama/theater work that reflects teachers’ and students’ creativity as well as meeting classroom needs.

Some of the best practices to achieve this include:

- Direct experiential instruction led by a drama/theater teaching artist, teacher or theater specialist who has extensive experience in the art form as well as:
  - Working in drama/theater with students in specific grades
  - Understanding and responding to curriculum, school culture, schedule, concerns
  - Designing and leading effective and respectful adult-centered professional development for teachers delivered over time that is:
    - Practical—meets the needs of teachers
    - Comprehensive—moves from simple to complex, provides follow-up resources (handouts, assessment suggestions, bibliography)
    - Nurturing of the creative process

After participating in a professional development workshop(s), ideally teachers should be mentored/coached by the instructor. This is particularly important for effective arts integration implementation.

These mentoring sessions should include time for the teacher to:
- Observe, plan, and co-teach lessons with the instructor
- Reflect on every aspect of instruction and application
- Practice techniques learned, create new lessons, observe peers
- Receive feedback over time (follow-up visits) from the instructor.

“21st Century professional development embraces and promotes teachers as creative human beings. Students are engaged by creative environments in which the teacher facilitates learning by modeling his or her own creative process.”

—Ken Skrzesz, Coordinator of Fine Arts, Maryland State Dept. of Education

For teachers who are striving to fully integrate drama/theater, this gradual release process may extend over several years until sufficient background knowledge is developed and teachers feel confident and competent to design and implement lessons with assessed objectives in both drama/theater and another subject area. Once this is achieved, arts integration can truly become their “approach to teaching.”

The ideal process for professional development can be costly and time intensive. Large performing arts centers like the Kennedy Center, with its Changing Education Through the Arts Program, and Lincoln Center offer rich and in-depth programs for teachers. Arts councils around the country and other performing art centers and school systems, especially those in the Kennedy Center National Partners in Education network, offer programs that reflect many of these qualities.

Many school systems, universities, and performing arts centers offer courses and summer institutes that provide teachers with experience in gaining basic knowledge and skills of drama/theater and there are several international opportunities. The American Alliance for Theatre in Education (AATE) is a fine resource for information about conferences/institutes in local communities, nationwide, and internationally. These experiences may not be fully comprehensive but they are good start.

**Professional development for theater specialists**

Theater specialists are usually certified teachers who work in a school full or part time. They teach drama/theater classes, direct school productions and in some cases work with other classroom teachers on drama/theater projects and/or serve as a resource to classroom teachers who are striving to integrate theater into their daily practice. Most theater specialists work in middle and high schools, however there are some in elementary schools as well.

Each theater specialist works in a program that has its own structure and personality based on the grades served, school culture, program expectations, administrative and staff support, as well as students’ interests, needs, and talents.
When thinking about professional development for theater specialists, it is important to consider some of their unique needs. At many schools, there is only one theater specialist, and their class content is often much different than others at the school. Yet too often, they are not provided professional development suited to their situation. “My present and past students who are theater educators often express frustration at the lack of professional development targeted especially for their needs. They long for opportunities to interact with colleagues to share ideas and resources and to get inspiration and validation,” observes Dr. Rosalind Flynn, head of the M.A. in Theatre Education at The Catholic University of America. “They need help with classroom management strategies for the active learning that theater requires, with ways to assess and document student progress that goes beyond ‘paper and pencil tests,’ and sometimes with convincing administrators that their courses actually do benefit students and should not be overly populated or cut completely.”

“In the scope of arts education, we must consider the range of students with whom we work; from those who will benefit from exposure to the art form, no matter their life’s interests to those for whom the arts are their life’s pursuit. And we will undoubtedly encounter them in the same space. Understanding these students’ individual needs is paramount, only equaled by how we respond to those needs.”

—Nathan Diamond, director, Arts, Office of Teaching and Learning, D.C. Public Schools

Common elements for effective professional development for theater specialists include:

- Opportunities to talk with colleagues, visit their classrooms, rehearsals, etc. to gain insight, ideas, and resources
- Professional development workshops designed to meet varying needs such as:
  - New trends in the field of theater both on and backstage
  - Classroom management techniques for theater classes
  - Community resources (including local theaters) and/or grants that can help build a theater program
  - Strategies to document and assess student learning
  - Comprehensive understanding of The National Core Theatre Standards

**Professional development for drama/theater teaching artists**

The professional development needs for the teaching artist (a theater professional) are primarily the same as the theater specialist but with a few modifications and additions.

Since most drama/theater teaching artists are not trained as teachers, they lack background knowledge in the pedagogy of teaching. In order to be effective (especially if working in arts integration), the teaching artist needs to understand both The National Core Theatre Standards and the subject area standards that guide teachers’ practice. They need instruction in reflection and assessment, how to modify their work for students with special needs or limited language, and to learn strategies for classroom management.

Drama/theater teaching artists, however, need more than professional development focusing on what they do not know about education; they also need to be inspired. Since teaching artists bring a different set of gifts to schools, inspiration helps them create new work and that work could in turn inspire students and teachers to gain new understandings and insights.

**Common needs**

Although each of these educators have different professional development needs, there are several key components they all need in order to grow:

- **Time** to learn, risk, fail, and triumph. Providing coverage for classes, professional leave, and compensation is essential for educators and artists to be supported in their professional growth.

- **Support** from administrators, school staff, and sponsors. Respecting the growth and development of these individuals and their work with students is essential. This means that everyone on a faculty understand and value the work of these professionals.
• Inspiration through exploring personal creativity in order to ignite the creative process in others. Attending and participating in performances, conferences, networking with colleagues, visiting classrooms and guest artists are just a few of the many ways these professionals can keep their own creative juices flowing.

By providing effective professional development opportunities to those passionate about using drama/theater in the schools, we help everyone get it “right.” Students receive meaningful and engaging instruction that builds essential academic skills and self-esteem, enabling students to stand taller and reach higher. At the same time, professional development efforts help teachers, theater specialists, and teaching artists move in a strong purposeful direction, discovering new ways to reach and empower students as well as make a lasting impact in their lives.

Lenore Blank Kelnor is an author, educator, arts integration specialist, as well as a theater and teaching artist. She is presently consulting with the Maryland State Department of Education serving as an Arts Education Consultant for Early Childhood. Lenore has presented her work in all 50 states and abroad. She has been a presenter with the John F. Kennedy Center for the Performing Arts since 1982 and was a Master Artist for the Wolf Trap Institute for Early Learning through the Arts for 25 years. Lenore is the author of The Creative Classroom (Heinemann, 1993) and co-authored with Rosalind Flynn, A Dramatic Approach to Reading Comprehension (Heinemann, 2006). Lenore was awarded the 2004 Creative Drama Award from the American Alliance for Theatre and Education.

GRANTEE SPOTLIGHTS

AEMDD: History Comes Alive Through the Arts Engage Initiative

For students at Middle School 303K in Brooklyn, New York, George Washington is more than just a face on a coin or another name to memorize for their history test. Instead, he’s a person with thoughts and feelings, grappling with the ideas behind the American Revolution. Indeed, our first president comes to life in social studies classes across four middle schools participating in the Arts Engage Initiative (AEI), a 2013 Arts in Education Model Development and Dissemination (AEMDD) project designed by The Center for Arts Education (CAE), which focuses on the impact of integrating theater concepts into social studies classes. As part of this project, students are writing, rehearsing, and performing monologues inspired by individuals who shaped history.

According to Dr. Eva Pataki, project director of the grant, these activities epitomize the higher-order thinking that CAE seeks to cultivate through the project, which brings together teaching artists and social studies teachers to collaboratively design and implement integrated lessons. “We believe that students learn best when they are active participants in their learning, and that’s what our project is all about. Whether it is writing a monologue, inhabiting a character, or performing on stage, students are using theater concepts and their own creativity to become leaders in their own learning.”

So far, Dr. Pataki’s belief seems to be well founded. Now in its second year of implementation, the grant is already yielding results. “Scores on social studies assessments have improved dramatically,” said Dr. Jerry James, director of teaching and learning at CAE. “And we are especially interested in students’ creative work and evidence of learning expressed in their own voices.”

To that end, CAE worked with researcher Dr. Lawrence Scripp to develop multiple measurements of student learning, including: 1. Open-ended worksheets where students describe their experiences; 2. Historical essays informed by primary sources; 3. Original dramatic monologues about social studies topics; 4. Images and
videos of student performances; and 5. Individual reflections that illustrate how elements of theater contributed to students’ understanding of social studies concepts.

Based on a review of the materials produced during the first implementation year, it is clear that students are responding well to the project. “Many students credit their participation with improving their confidence. Often, they mention specific lessons or activities, such as creating a scene or rehearsing in groups, that helped them grasp key concepts, both in social studies content and principles of theater,” said Dr. Pataki.

“In their final reflections, many students commented on how much they enjoyed learning through a creative process. Theater helps students understand that they have agency, and that not only makes learning fun, it also makes it stick.”
—Dr. Eva Pataki, Middle School 303K in Brooklyn, New York

Teachers and school leaders are also enthusiastic about the project. Dr. Pataki said one reason CAE’s Arts Engage Initiative has obtained strong buy-in from schools is that classroom teachers and teaching artists are recognized as experts in their respective fields. “It has to be an equal relationship between the classroom teachers and teaching artists. We always emphasize that theater is not just a means for teaching social studies, but that we also see social studies as an instrument for teaching theater concepts.” This orientation, she observed, has helped maintain broad support for the project. In fact, at some schools there have been requests by teachers in English language arts, math, and science for additional professional learning sessions on arts integration. There has also been interest in expanding the project to include other arts disciplines, such as music, dance, or visual arts.

Although AEI currently focuses on theater and social studies, Dr. Pataki believes that lessons learned through this grant are broadly applicable. “We have seen how well students, teachers, and school leaders have responded to this project, and what they like about it goes beyond just theater and social studies. It’s about helping students be creative, active learners. I think we’ve shown that when you invest in arts education, beneficial outcomes can spread across the whole school. I’m optimistic about the future.”

PDAE: Dramatic Changes at Austin Independent School District

Student academic achievement and teacher engagement have improved since the Austin Independent School District (AISD) received a 2014 Professional Development for Arts Education (PDAE) grant to expand its Creative Learning Initiative (CLI). But, to get a true taste of the program’s impact, project manager Yesenia Herrington says you need to visit a classroom of a participating teacher. There, you may see students embodying a character from a novel as they answer questions from their peers, or use narrative pantomime to bring a story to life. For Herrington, these sorts of activities are what the grant is all about: getting students engaged and excited about learning. “I’ve seen students who are shy or unengaged become completely invested in developing a character, exploring motivations and ambitions, and it really helps students come out of their shells and become confident,” she observed.

VIDEO: Ms. Smith’s first grade bilingual class from Govalle Elementary School in Austin, Texas, use narrative pantomime, a creative learning strategy, to bring a story to life.

Students are not the only ones gaining confidence through the project, which provides foundational training in drama-based instructional strategies to over 300 teachers. According to Dr. Brent Hasty, executive director of MINDPOP, the managing arts partner for CLI, teachers have remarked on how the training they’ve received makes them feel excited and inspired about integrating arts into their lessons. He credits this enthusiasm with the way the program empowers teachers to use drama in ways that work best in their classrooms. “We focus on helping teachers learn skills they can use in many contexts. We
don’t just give teachers a one-size fits-all, pre-made lesson plan about, for example, teaching the Texas independence movement using a play.”

What the Creative Learning Initiative does, says Hasty, is help them think about how, when, and why to use drama concepts in their lessons, and gives them tools to do so. For example, teachers receive support on how to integrate a strategy like Tableau and learn how this instructional strategy can enrich students’ understanding and develop mental models of difficult concepts. To support this process, teachers are provided with job-embedded coaches to help them refine their skills and become comfortable with adapting the tools they learned in the training to their specific curriculum. Other resources include strategy cards, which have high-level guidance about implementing topics covered in the professional development; teacher guidebooks, which provide more detailed information than the strategy cards; and a blog, where teachers read about the latest developments in arts integration and share their own experiences.

Besides fostering teachers’ confidence, the training teachers receive through CLI is applicable for grades pre-K through 12. “Since we’re not just handing out lesson plans, but actually helping teachers reflect on how, when, and why to use the strategies, our program benefits teachers across grade levels,” observed Hasty. By implementing the initiative across all grades within a vertical team, which is comprised of a high school and its feeder middle and elementary schools, CLI ensures that all students receive the benefits of sustained creative learning education throughout their school careers.

“The vertical team implementation approach also means that teachers receive support from their entire school community. “In order to get the maximum impact of professional development, you can’t just think about the learning opportunities for individual teachers. You have to think about the overall systems teachers are embedded in, and that’s why we take a comprehensive approach to implementing CLI,” observed Hasty. In practice, this means that participating schools reflect on the integration of creative learning not just in the classroom, but as part of a larger campus culture. The components of an arts-rich campus—creative teaching, community arts partnerships, sequential fine arts, and after-school programming—are embedded into annual campus improvement plans and teacher evaluations.

Through their PDAE grant, AISD added CLI to an entire vertical team, and the future looks bright. “The PDAE grant has allowed us the opportunity to expand the reach of creative learning and help us meet our goal of making the entire district arts rich by 2025,” said Herrington.

**IN-FOCUS STANDARDS: NEW NATIONAL STANDARDS FOR THEATER EDUCATION**

The National Standards for Arts Education have shaped the way schools teach the arts for over 20 years. To ensure that arts education continues to stay on the cutting edge of research and best practices, the National Coalition for Core Arts Standards recently updated the standards for five arts disciplines. We talked with Jim Palmarini from the Educational Theatre Association about the new theater standards.

Q: How are the new theater standards different than the National Standards in Arts Education released in 1994, and what was behind these changes?

A: The new standards are more rigorous, more specific, and they cover more areas. The standards that came out in 1994 were at the grade band levels of 3, 5 and 8, and 9, 11 and 12; whereas the new standards offer grade-by-grade guidance that facilitates scaffolded learning at each level. This means that as a student moves up through school, they are asked to do more critical thinking and reflection, and also to collaborate more with their peers. The new standards’ high school levels are “proficient,” “accomplished,” and “advanced.” When a student meets the advanced level, it means they are ready to advance to college-level work.

Q: Do you anticipate that the new standards will promote theater for theater’s sake?

A: Yes, but that doesn’t preclude them from also encouraging the integration of theater into other disciplines. When we were developing the standards, we started with the premise that there is an innate value to the arts; arts are an opportunity to share culture and reflect on the human condition, and we want students to understand and appreciate the arts throughout their lives. At the same time, the arts in general, and theater in particular, can be very effective at teaching skills that students can use to support learning in other areas, and the new standards reflect that. For example, a technical theater project might demand math, science, and history understanding. To build a turntable for a production of Les Misérables, a student must understand the mathematics of assembling...
the quadrants of the turntable and the engineering demands of a rotating platform. Those students involved in costuming and set design must be knowledgeable of 17th century France and the milieu of the revolution.

**Q:** The new standards include a new artistic process: connecting. Can you talk about the processes underpinning the new standards, and why connecting was added?

**A:** The new standards offer ways to measure what happens in art making, such as imagining, rehearsing, and, in the artistic process of connecting, empathizing. The main reason for adding the artistic process of connecting is that, through the creative process of art, you connect with other subjects as well. So, for example, through preparing and producing a theatrical performance, students learn about the subject matter they are performing; they learn vocabulary from their scripts, and they learn plot and narrative devices through rehearsals.

**Q:** What has been the feedback you have received from teachers about the new standards?

**A:** It has been very positive. Teachers appreciate the standards as a pedagogical tool that helps them build curriculum and reflect on what they’re doing. Many teachers tell me that they appreciate how the standards affirm their professionalism. So much of theater happens in an after-school environment, and that can obscure the good work theater instructors are doing. The new standards—with their robust, sequential, and scaffolded nature—help teachers get credit for how theater is helping students learn.

**Q:** The Model Cornerstone Assessments are example work products that teachers can use to see for themselves what type of student output would be considered at or above standard. It is up to the teachers to assess how their students’ work compares to the models, but the hope is that they offer teachers a tangible product to serve as a point of reference. How can they help teachers guide their instruction?

**A:** The goal is for theater to be part of a well-rounded education, and that means making it available to all students, not just those perceived to be talented. The Model Cornerstone Assessments offer examples of work products that would be considered at or above standard. This helps teachers craft lesson plans around clear examples of accessible, age-appropriate markers of success.

Jim Palmarini is director of educational policy for the Educational Theatre Association, and an expert on the new theater standards.

**MUSIC (JUNE 2016)**

**FEATURE ARTICLE: ENERGIZING LEARNING THROUGH MUSIC**

—by Dr. Dee Hansen, professor of music education and director of graduate studies at the Hartt School at the University of Hartford

Middle school students who are divided into teams write and compose hip-hop songs that reflect their understanding of events in history and social studies. This Fresh Ed classroom buzzes with enthusiasm as one student shares ideas with others. As a group they join the words and music to express their interpretation of the important learning goals of the lesson unit. For these students, an active learning environment such as this brings to life what some might view as old and irrelevant subject matter.

This short scenario represents many levels of learning: personalizing cultural understanding; learning important future workplace skills such as collaboration, communication, problem solving, and creativity; furthering growth in musical knowledge and skills; and developing critical language arts skills. An uninformed observer might wonder how all of this could happen when the students are engaged in a noisy, creative activity. The answer revolves around how we learn and what motivates us to learn.

**Brain research**

Nearly every class I teach or professional development I facilitate begins with an overview of current brain research. Understanding how we learn informs how we teach. Neuroscientists, neuropsychologists, and educators have teamed up in an insatiable drive to discover what the mechanics of our brain have to do with learning processes. This research is immensely helpful to us as we discover how neural connections are made and how learning affects us emotionally and psychologically. Music, in particular, is a hotspot of research activity all over the world. Involvement in music learning is proving to be a developmental elixir for the brain on multiple levels from birth to old age.

In relation to music learning, we know that participation in music activates critical parts of the brain. The primary lobes of the brain’s cerebral cortex that are highly involved with learning include the Occipital Lobe for visual processing; the Temporal Lobe for auditory processing; the Parietal Lobe for spatial awareness and sensory processing; and the Frontal Lobe for speech and motor functions, reasoning, problem solving, and controlling behavior.
All of the lobes and their cortices have specialized roles but are entirely interactive with the rest of the brain including memory and emotion centers. We know, for instance, that music can trigger specific memories, which often activate internal chemical reactions associated with various emotions including pleasure and satisfaction. Music that is common to a given culture provides a sense of stability and recognition that can be motivating in its familiarity.

**Music and language literacy**

Researchers from the Kraus Auditory Neuroscience Laboratory at Northwestern University over years of investigations have uncovered important effects of music in auditory processing of rhythms, pitch differences, and timbre or sound quality. Their lab and many others are investigating the parallels between music and language development. Technically, reading literacy is dependent on the development of language. To date they have found that speech and musical sounds mutually rely on what language arts teachers call “prosody.” Prosodic elements of speech—the frequencies, intensity, timber (quality), and durations (rhythms)—are necessary for relaying meaning as we speak or read aloud. These elements are at the heart of phonological awareness (or awareness and understanding of sound) which is a foundational element in reading. Combined with investigations of the mechanisms which underlie the relationships between linguistic and musical rhythm in songs, we can begin to understand why recalling factual information is easier when applied to song formats. Physiologically, humans rely on patterns—rhythmic, melodic, harmonic, and visual—to assist with memory.

It makes sense, then, that projects like Fresh Ed can be highly effective. The development of language is critical to successful reading skills. By applying specifically directed language to the rhythms and pitch of a song, students create learning patterns, they practice saying and speaking the targeted vocabulary, and they problem solve and think critically about assigning meaning to their song lyrics. These cognitive skills are significantly important and transferable and develop neuro-processing and growth through the entire brain.

Music teachers who are well trained in effective methodologies also strongly support language and reading development. In refining their musical pedagogy, Project Etude teachers learn time-tested approaches for helping students to better discriminate and perform musical sounds. Each of the methodologies has phonological awareness at its core. Internalizing sound or audition, as described in Gordon’s Music Learning Theory, is a key factor in music performance. We must be able to internally understand and then perform melodic lines and rhythmic sequences. Eventually we apply those sounds to musical symbols; we decode the symbols into sounds. The reading process involves the same procedures. Musical development supports early language literacy development.

Again, researchers are uncovering strong relationships between these entities. We know that the majority of students who have reading disabilities are deficient in phonological skills. Children must be able to differentiate and replicate sounds (e.g., consonants such as b, p, and blends such as bl) and associate them with text symbols. Music teachers specialize in sound discrimination learning. Music itself is an auditory art with an infinite array of highly nuanced variations. Early on children learn the differences between high-low, fast-slow, and soft-loud sounds. Whether they sing or play instruments to practice these variations, the intent is the same.

As we develop these musical skills, we learn to match pitch, accurately perform complex rhythms, and blend our music making with others around us while at the same time paying attention to our own musical production. We decode musical symbols on multi-levels as we process and perform pitches, rhythms, meters, text, and affective
markings such as dynamics and articulations, all at the same time. Though recently researchers found specific locations for language recognition and music recognition, the complexities for processing and performing written text and music are overlapping and transferable. Music learning helps us develop language and reading literacy skills.

In the Arts Education Partnership publication, Champions of Change, researchers found that students who were highly involved in the arts, including economically disadvantaged students, scored substantially and significantly higher in important attitudes and behaviors including academic performance in reading than students with little or no musical involvement. When researchers conducted a meta-analysis investigating the relationships between music education and reading/language skills, they found that music instruction is linked to improved phonological skills. As we consider the physiological structures of the brain, these findings are logical and provide noteworthy points of advocacy for the importance of strong music programs in our schools. However, the benefits of music don’t stop there. Let’s also take a look at why music can be so motivating and is also a strong training ground for 21st century skills.

Why does music bring us together? Motivation and active learning classrooms

The discovery of ancient bone flutes dating 35,000-40,000 years ago raises many questions. Why would early humans make musical instruments, whether for communication or pleasure, when simply surviving wild animals and their untamed environment should be their focus? This puzzling question posed by anthropologists, psychologists, historians, and others frames the discussion of why music is so motivating. Participating in music making, creating, or listening appears to be a natural, internally driven means of expression. Through it we communicate, transmit emotion, establish cultural norms and values, and entertain.

Experiences with arts education provide a fertile ground for these types of activities. Using Fresh Ed as the example, creating music compositions is not only engaging, but it requires students to experience and develop 21st century workplace skills. Students must think analytically, and problem solve by thinking about how to apply the historical information to a new circumstance. This cognitive experience represents synthesis and creativity, the highest levels of Bloom’s Taxonomy. Additionally, students must develop some sophisticated social and behavioral skills. They need to learn to collaborate and communicate with one another while respecting each other’s opinions and ideas, and then transform them into a song, what Scott Shuler describes as “real-world music making.”

The end goal for these types of experiences is for students to own their learning, to internalize the cognitive, social, and behavioral lessons so that they may learn to be productive citizens in and out of school. These are lofty goals, indeed. Rich arts education experiences teach critical skills that transcend memorizing and regurgitating facts. Indeed, music and arts education provides multi-faceted and engaging learning environments that develop literacies and future 21st century workplace skills.

Connections to arts and literacy standards

The National Core Arts Standards (NCAS) and the Common Core State Standards for English Language Arts (CCS ELA) share many common features. Both emphasize increasingly advanced cognitive skills; both have as their foundation process-based skills as ways to acquire the learning targets. Foundational skills for the ELA standards include four categories: phonological awareness (understanding and discriminating sounds), phonics and word recognition (the ability to decode words and sounds), print concepts (understanding the organization and basic feature of print), and fluency (reading with accuracy and fluency in order to comprehend purpose of context). The parallel processes in achieving music literacy are striking. The National Arts Standards include Enduring Understandings that help teachers frame the big ideas or concepts in music learning and the related standards. Here are some examples from the pre-K-8 Music Standards for fourth grade that demonstrate these parallel processes:
- **Artistic Process:** Perform
- **Process Component:** Analyze
- **Enduring Understanding:** Analyzing creator’s context and how they manipulate elements of music provides insight into their intent and informs performance.
- **Standard:** MU-Pr4.2.4a: Demonstrate understanding of the structure and the elements of music (such as rhythm, pitch, and form) for selected performance.
- **Standard:** MU-Pr4.2.4b: When analyzing selected music, read and perform rhythmic patterns and melodic phrases using iconic and standard notation.

To meet these standards, students must have the ability to discriminate the sounds of elements of music (*phonological awareness*). They must decode and perform music based on musical symbols (*phonics and word recognition*) and in doing so, understand the organization of musical symbols (*print concepts*). When students have mastered these skills, their ability to perform music becomes more automatic (*fluency*) and can transfer to other musical tasks.

You will read in the In Focus sidebar that what students do in the music classroom and how they think and interact with one another provides the foundation for curriculum, assessment, and teaching. These processes can be readily found in arts education programs. However, it is not just about playing, singing, or moving to music, it is also about students thinking about their music or arts making. This metacognitive approach is also suggested in the English Language Arts standards. Students are asked to integrate ideas, compare and contrast, analyze, distinguish, and demonstrate comprehension. The CCSS ELA standards do not delineate how teachers should teach, but implied active learning techniques are a hallmark of today’s professional development, SLO creation, and teacher evaluations. Classrooms in all disciplines are changing to reflect authentic life situations. We have moved from the textbook to the world around us.

**In summary**

Through the centuries, music has remained pervasive in all cultures and societies. Today the vast amount of musical genres is dizzying, yet the presence of pitches, rhythms, harmonies, and affect continues to be present in each. With planning and proper execution, using music to teach academic subject matter is highly motivating and effective. It is the consummate active learner environment; one which places the students at the center of learning and the teacher as the facilitator of the learning. In this educational setting, teachers move seamlessly from direct instruction to modeling to inviting students to participate in a collaborative, interactive exchange of ideas and project creation. Students learn the material from multiple perspectives: learning specific facts or concepts, trying out or applying the facts or concepts, and then sharing those ideas with each other and building something new or representative of the learning goals. Most importantly, when music learning is advanced through strong pedagogical instruction, students become engaged and energized. Kudos to the outstanding AEMDD and PDAE projects spotlighted in this issue, and the others supported by AIE that are demonstrating the importance of music—for its own role in a well-rounded education and for the connections it shares with other core subjects.


*Dr. Dee Hansen is professor of music education and director of graduate studies at the Hartt School at the University of Hartford.*

**GRANTEE SPOTLIGHTS**

**AEMDD: A Fresh Approach to Education**

To get a sense for how important music is in the lives of young people, just count the number of students wearing headphones when they walk in to school in the morning. At middle schools throughout New York’s District 19, virtually every student listens to music as they come to class, discusses music over lunch, and enjoys music in their free time. “It is almost impossible to overstate the role music plays in youth culture,” observed James Miles, project director of Fresh Ed, a 2014 AEMDD grantee that is infusing contemporary music into middle school social studies and English language arts (ELA) classes. “Many young people see music, especially hip-hop, as a reflection of their identity, and it infuses virtually every aspect of their social lives.” Whereas some adults might see young people’s focus...
To do so, Fresh Ed uses a custom curriculum to integrate hip-hop into social studies and ELA classes. The curriculum, which is aligned to the National Core Arts Standards and Common Core, revolves around musical tracks written, produced, and recorded by teaching artists. For example, a track called *Metaphors and Similes* uses rhythm and rhyme to convey the basics of an ELA lesson on the topic. Similarly, there is a social studies track that raps about the causes of the American Revolution. Currently, there are 15 standard pieces, or "classic tracks," in the Fresh Ed curriculum. Although these classic tracks contain lessons in themselves, Miles believes that the most powerful aspect of the program comes when students engage with the materials and create their own songs.

"In hip-hop, it is common for artists to collaborate, build upon each other's work, and remix beats," said Miles. "Our curriculum embraces this practice by encouraging students to add their own perspectives and thoughts to the music." In fact, this interactive process is at the heart of the Fresh Ed approach. During the first year of the grant, teaching artists and classroom teachers met once per week to strategize ways to incorporate the tracks into the lesson plan. Then, during a weekly Fresh Ed classroom session, the teaching artists visit classrooms and help students understand the classic track and build their own fresh tracks. "In a given class, we will start with the hook of the song—that's the catchiest part, and it engages students. Then we get into the chorus and apply the content knowledge, and then move on to the bridge," explained Miles. "Along the way, students are learning musical elements, and they're internalizing the content."

When students master the classic track, they are encouraged to add their own lines, remix the song, or build on the beat. "We help transform the classroom into something of a recording studio, with the students as the artists and the teachers as producers," observed Miles. "We even have one class that refers to their teacher as Puffy because she has so enthusiastically embraced the role of 'rap mogul' in the classroom, always giving feedback and encouraging her students in their art." According to Miles, students love making their own tracks, which in turn helps them really engage with lessons. "When students are writing lyrics about the Cold War, for example, and they're trying out rhymes or fitting words to a beat, it helps them think about the content on their own terms," said Miles. In fact, many students enjoy the process so much that Fresh Ed has developed an app to let students interact with the materials outside of school. This app, called the Annotator, lets users make notes on lyrics and record their own raps or remixes.

According to Miles, the students' embrace of the program has helped overcome skepticism among some teachers, who worried that the music would be disruptive. "At first, some teachers were concerned that the program would be a distraction from their lessons, or that it would take away time they needed to help students prepare for state assessments," recalled Miles. "It helped that the curriculum is standards-based, but it was also critical for teachers to see how students responded. Now, virtually all the teachers are very positive about the program, and many are excited to train their colleagues on our approach." Administrators are also supportive of the program, in part because it dovetails with New York Public Schools Chancellor Carmen Farina's commitment to music and arts education. "Fresh Ed helps middle school teachers use arts to increase engagement and academic success, and it helps students become artists in their own right, so we align directly with Chancellor Farina's arts initiative," observed Miles.
Miles believes that music is a universal language, which bodes well for replicating the program at schools across the country. “Music is everybody’s first language—across cultures, places, and traditions, everybody understands rhythm,” said Miles. “We can leverage this intuitive appreciation for music to help students learn in many contexts.” To that end, Fresh Ed is developing a comprehensive dissemination plan. In addition to the Annotator app, which is available to the public, Fresh Ed has uploaded all its classic tracks to Soundcloud and its website, and has a social media presence on Twitter, Facebook, and Instagram. With such an active online presence, it’s no surprise they’ve developed a strong youth following; the next time you see a group of students bobbing to their headphones or buried in their phone, they just might be engaging in a social studies lesson from Fresh Ed.

**PDAE Spotlight: Trailblazing a New Approach for Arts Education**

Before embarking on their journey to the West, Lewis and Clark stopped in Independence, Mo., to gather provisions and talk to the handful of fur traders who had traveled beyond the Rockies. They knew that once they passed this juncture, they’d have to rely on their skills and perseverance to get them through to the Pacific. The teachers at Fort Worth Independent School District (FWISD) don’t face quite the same challenges as Lewis and Clark, but they too are among the first to journey down a new path. “We think of ourselves as trailblazers in our approach,” said Angela Rash, PsyD, who is project coordinator-manager of Project Etude, a 2014 PDAE grantee that provides professional development to music teachers at 117 schools in low-income neighborhoods in Fort Worth, Texas. The project also helps teachers create and use student-learning outcomes (SLOs), which are standards-based, measurable goals designed to assess teacher effectiveness in content areas that are not covered by statewide assessments. “There are not many schools or districts using student-learning outcomes (SLOs) to measure their music instruction, so we are excited to see how it works and document our experiences.”

> “There are not many schools or districts using student-learning outcomes (SLOs) to measure their music instruction, so we are excited to see how it works and document our experiences.”
> —Angela Rash, PsyD, FWISD, project coordinator-manager of Project Etude

As any explorer would attest, the most important day of a journey occurs before you’ve even set one foot down your path. Preparation is vital to the success of any mission, so Project Etude made sure to invest in substantial planning and training before implementing SLOs in the classroom.

Using grant funds, Project Etude sent music educators at 10 schools in the district to an all-day professional development course at the beginning of the year, where they learned about what an SLO is, how to ground them in the appropriate standards, and how to tailor them for their own classes. “Our SLOs are completely based on the Texas Essential Knowledge and Skills (TEKS) standards,” explained Rash. “For example, one of the music standards for elementary school is that a child should be able to distinguish between a speaking voice and a singing voice.” By the end of this all-day professional development course, each of the teachers had created custom SLOs for one of their classes, which were rolled out during the 2015-16 school year.

Although it is too early to definitively judge the impact of the SLOs, Rash says that early experience has been positive. “Rolling out the SLOs has helped teachers take stock of what they are teaching, why they are teaching it, and what is involved in good instruction that is meaningful for students,” said Rash. “The SLOs have encouraged teachers to be mindful about how they plan for instruction.” Rash also observed that the SLOs help provide structured assessments for content areas not covered by state assessments. “TEKS provide content standards for all curriculum, tested or untested,” said Rash, “but the SLOs are helping teachers make evaluations about what does and does not work” for content areas that are not covered by state tests.

Of course, the nature of trailblazing is to forge a path beyond your comfort zone; in these cases, it’s always useful to have a guide who is familiar with the general lay of the land. For the music teachers in Project Etude, their guide was Paul Stautinger, a consultant who had helped Austin
ISD develop and implement SLOs in core subject areas. In addition to leading the initial professional development to help teachers create their SLOs, Stautinger taught three half-day follow-up professional development courses and provided one-on-one coaching to the teachers throughout the year. “The follow-up training and coaching was vital to helping teachers implement their SLOs thoughtfully,” said Rash. “It helped teachers connect their overall SLOs to semester goals, unit goals, and even individual lesson plans.”

In addition to their professional development on creating and using SLOs, Project Etude also provides teachers access to certification training in four music pedagogies: 1) the Gordon Institute of Music Learning (GIML), which is focused on the connections between audiation and music literacy; 2) the Kodaly Approach, which is a German-inspired approach to choral music; 3) Orff-Schulwerk, which emphasizes the importance of young children handling and playing actual musical instruments; and 4) El Sistema, which draws connections between music, social development, and community interaction. Teachers have reacted positively to the professional development. “The project has given teachers the resources and opportunities to reflect on their craft and think about ways to improve their practice,” said Tracy Marshall, FWISD Grants Executive Director.

The professional development offered teachers the opportunity to learn about cutting-edge musical pedagogies, but just as importantly, the grant also provided opportunities to acquire new equipment and technology to implement these approaches. “It has been so valuable to be able to put instruments in kids’ hands,” observed Rash. “Through the project, students are able to practice what they learn and explore for themselves concepts such as tone, scale, and rhythm.” The most popular tool has been the Yamaha Harmony Director, which helps teachers demonstrate entire chords that are precisely tuned. Rash remarked, “Teachers are especially excited about the use of Harmony Directors within their classrooms because it really helps the kids understand and differentiate correctly tuned notes and chords. It makes learning tangible—kids can tell the difference with their ears, and it helps them internalize what they’re learning through proper ear training.” Be sure to check out this video of the Harmony Director in action and hear teacher testimonials.

**IN-FOCUS STANDARDS: NEW NATIONAL STANDARDS FOR MUSIC EDUCATION**

The National Standards for Arts Education have shaped the way schools teach the arts for over 20 years. To ensure that arts education continues to reflect cutting-edge research and best practices, the National Coalition for Core Arts Standards (NCCAS) recently updated the standards for five arts disciplines. We talked about the new music standards with Scott Shuler, recent president of the National Association for Music Education (NAfME) and co-chair of the national music standards writing team.

**Q:** How are the new music standards different than the National Standards in Arts Education released in 1994, and what was behind these changes?

**A:** NCCAS surveyed state education agencies (SEAs), the “first-tier” adopters/adapters of standards, and learned that they wanted new standards to be written grade-by-grade, which required more specific (i.e., finer-grained) language. SEAs also wanted the new standards to address higher-order understanding as well as skills, to be assessable, and to clarify parallels as well as differences among the art forms. Uniquely in music, at the secondary level we wrote four parallel sets of standards to help educators craft curriculum for the most common strands of music courses. To simplify teachers’ classroom work, there are fewer music standards for each grade level in the new set than in 1994. For a more complete list of comparisons, see this link.

![FWISD students rehearse a musical performance.](image)

![VIDEO: Harmony Director (HD-200)](video)
Q: The new standards emphasize artistic processes—creating, performing, and responding—as drivers of curriculum, instruction, and assessment. Can you describe these artistic processes, how they were selected, and talk about the thinking behind this approach?

A: Schools should empower their students to independently carry out the three artistic processes—creating, performing, and responding—in music. Using the Artistic Processes as a central organizer is arguably the single most powerful evolutionary feature of the new standards, as well as of arts frameworks for an increasing number of states and countries and the past 20 years of arts NAEP assessments. Both the 1994 and the new standards present a vision of music education that calls for students to make (perform, create) music with understanding (analyze, classify, evaluate), but in 1994 the nine music content standards often appeared somehow disconnected. The artistic processes authentically reflect how musicians—both amateur and professional—interact with music in the world outside school. For example, performers select, analyze, and interpret literature; rehearse it; and present it to an audience. In the new standards the processes provide the strings on which the pearls of the standards can be strung, thereby lending coherence and sequence to curriculum, instruction, and assessment.

Q: How did Understanding by Design (UbD) influence the writing committee’s approach to developing standards in these processes?

A: Most contemporary approaches to curriculum call for students to go beyond skills to develop understandings, which are variously referred to as Big Ideas, Concepts, or – in Understanding by Design—Enduring Understandings (EUs). Teachers find these difficult to create from scratch, which often slows down curriculum work. Writing teams therefore provided sets of EUs and Essential Questions linked to the processes to facilitate curriculum development, as well as to provide teachers with insight into the ultimate goal of teaching the standards: empowering students to become thoughtful as well as skillful in their interactions with music.

Q: To what extent do the new standards address integrating and/or connecting music with other content areas, and how? To what extent do they focus on teaching music on its own terms?

A: Musicians make authentic connections every time they create, perform, and listen to music; effective music educators therefore help students make connections all of the time. Rather than attempting to list the endless array of possible connections, writers of the music standards chose to highlight several of the most common and powerful. The music standards for creating, performing, and responding include dozens of references to cultural and historical context; to communicating ideas about music through language; and to musical meaning, sometimes conveyed in part through lyrics. To reflect real-world music-making, all connections are embedded within the creating, performing, and responding performance standards; the music performance standards for connecting contain no unique content, but instead are duplicates.

Q: The role of technology in music has changed dramatically since 1994. How did the committee acknowledge that in the new standards?

A: Technology has transformed the way we create, perform, and listen to music. Every music classroom should, for example, have digital recording and playback equipment to preserve and allow students to review and improve their work; every student should have opportunities to create using digital software and hardware. The writing team deliberately crafted the standards to offer teachers and students flexible paths, traditional or technological, in most areas of the music curriculum. Music Technology is the title and focus of one of the four secondary strands.

Q: How do the Model Cornerstone Assessments (MCAs) reflect the new standards, and what advice would you give to teachers seeking to use them to guide their instruction?

A: The Model Cornerstone Assessments can be adopted or adapted by teachers not only to monitor the success of their instruction, but—consistent with the UbD principle of Backwards Design—to guide their instruction. Music teachers teach a remarkable quantity of skills and knowledge to students, particularly given their too-often limited instructional time. Musical performances are the publicly exposed tip of an iceberg of learning, 90% of which typically remains hidden beneath the surface. Each music MCA focuses on one artistic process, and outlines a sequence of classroom-tested tasks to produce evidence that students are mastering standards associated with that process. MCA scoring scales provide examples of how teachers can measure how well their students are doing. Once the piloting process is complete, scored student work will be posted to illustrate what it looks and sounds like when students achieve the standards.

Q: What input did you solicit from teachers before publishing the new standards? How many states have adopted or adapted the music standards?

A: The music standards writing team invited scores of teachers and scholars to participate on subcommittees that drafted standards for specific grade spans and courses, so more than 50 music educators from across the U.S. were directly involved in writing the standards. Draft sets of music standards were circulated nationwide three times during the development process, providing multiple opportunities for educators, artists, and other interested citizens to provide input either online or in live focus groups. As of early May, 11 states had adopted or adapted the National Core Arts Standards, and another
10 states were well along in the adoption process. Just as when the 1994 standards were first published, many district leaders and music educators in other states report that they are already using the new arts standards in their curriculum development and lesson planning, often with encouragement from their SEA. The following are links on the NAfME site to a user-friendly version of the National Core Music Standards, to the latest draft Model Cornerstone Assessments in Music, and to Opportunity-to-Learn Standards, outlining resources students need to support their achievement of the new music standards.

Scott Shuler was co-chair of the national music standards writing team, and served as president of National Association for Music Education (NAfME) from 2010-2012.

**VISUAL ARTS (SEPTEMBER 2016)**

**FEATURE ARTICLE: ART AS INQUIRY – CONTEMPORARY VISUAL ART IN EDUCATION**

—by Dr. Julia Marshall, School of Art at San Francisco State University

Why should the visual arts be part of education? Although it seems like the issue of art’s value to learners should have been settled long ago, educators still grapple with it and arts educators continue to provide answers. Once considered an outlet for personal expression, creativity, and fulfillment (see Lowenfeld & Brittain, 1987) or as an academic discipline (Discipline Based Art Education; see Dobbs 1992), the visual arts are now celebrated for the multiplicity of benefits they bring to education and learners. In their publication, *What We Believe and Why* (1977), the National Art Education Association (NAEA) argued that the visual arts belong in schools because they are sources for aesthetic experience; bases of human understanding; means of developing creative and flexible forms of thinking; and ways of helping students understand and appreciate art. In their latest publication, *Learning in the Visual Age* (2016), the NAEA updates their list of purposes, arguing that the visual arts are more important than ever because they foster visual literacy in a visual, technological age. NAEA also cites the cognitive benefits of the visual arts, such as fostering recognition, perception, sensitivity, and imagination (Eisner, 2002), and engaging students in complex subtle thinking (Perkins, 1988) and the *Studio Habits of Mind* (Hetland, Veenema, Winner and Sheridan, 2009). These cognitive gains are complemented by the more affective benefits of art experiences: increased student engagement in school, enhancement of self-esteem and sense of agency, and greater motivation to learn (Hanley, 2013). Add to this the argument that the arts are critical to educating the whole child, fostering social and emotional growth (Campbell & Simmons, 2012), and developing empathy toward others (Jeffers, 2009).

*Our National Visual Arts Standards (NAEA 2014)* are perhaps our best indicator of what a “quality” visual arts education should be. Their focus on creation, production, and reflection calls attention to the hands-on, minds-on learning that occurs through creative making and doing. This suggests that the discipline-specific skills in the visual arts, such as drawing, painting, designing, constructing, and sculpting, align with more transferable skills, particularly complex thinking and creativity skills.

Just as the new standards place a premium on creation, they also include looking at, reflecting on, and learning from visual art exemplars. This is where frameworks for reflective inquiry such as Visual Thinking Strategies (VTS) come in. As you see in this newsletter, VTS is a core practice of the University of Oregon’s STELLAR project. One of VTS’s primary tenets is open-ended inquiry (Yenawine, 2013). In VTS, young learners respond to generative prompts that catalyze thinking and response; they come to questions and answers through conversation, not through teacher direction toward expected outcomes. Couple VTS open-ended critical inquiry with creative studio practice (making art), you could have a solid model of arts education.

**A new model: Art-based research in the classroom**

“Visualizing abstract ideas through an artistic lens is a viable teaching tool, one that allows us to expand our students’ web of knowledge in very engaging and eye-opening ways.”

—Weir, 2016 (P. 11)

These are the words of Jamia Weir, a K-5 art specialist at Larchmont Charter School in Los Angeles. In her reference to visualization and artistic lens, Weir articulates a subtle shift in thinking about the role of visual arts experience in learning. She illustrates this change in the May 2016 edition of *Art Education*, the journal of the National Art Education Association, with a vivid account of what her fifth grade
students studied, created, and learned in their arts-based inquiry into the “Cycles and Flows” of natural processes in ecosystems and the work of contemporary artist Andy Goldsworthy. In the fifth graders’ investigation, art was considered a lens through which to view the world and art methods as a means of inquiry.

This perspective may seem a minor adjustment in art education’s focus, but it has significant consequences for how we conceptualize art practice, develop art curriculum, and advocate for a strong presence of art in schools. Why? First it places art creation at the center of arts learning, integrating the kind of critical open-ended inquiry of programs such as VTS with hands-on creative experience. Exploring meaning in art exemplars becomes part of a young artist’s inquiry, one that includes creating his or her own artwork. Second, it shifts the focus of art activities away from production of aesthetic or expressive objects toward learning about a topic through artistic methods and means. In this way, it connects art practice more closely to education and learning. The important question is no longer what did you make, but what did you learn through making it? Third, inspired by contemporary practices in the visual arts, the art-inquiry approach connects art education with some of the latest thinking and forms in the field of art.

**San Francisco Creative Arts Charter School**

First articulated in the context of professional studio practice as Art-Based Research (ABR) by Sullivan (2010), this perspective has been adapted to the classroom in a handful of programs in the San Francisco Bay Area. One elementary-level example comes to us from the Creative Arts Charter School in which Ann Ledo Lane, an art specialist, and Katie Clay, a classroom teacher, took a class of third graders on field trip to Muir Woods in Northern California.

This project is noteworthy because it highlighted investigation and it did this by employing and emphasizing a mix of scientific and artistic methods of inquiry. To reinforce this emphasis and the connection of art and science, students kept research workbooks, hybrids of scientific field study books and art journals. In them, they chronicled their observations and thinking, drew what they saw, mapped their ideas, and made connections between what they were learning in the woods and their own lives. Filled with drawings, concept maps and written reflections, these research workbooks emerged as a pieces of “information art” that mixed serious learning about the ecosystem, history, and culture of Muir Woods with playful storytelling and metaphorical thinking. The project concluded with students recounting the key events in their eight years of life and then mapping those events on
collages of concentric circles. These artworks were inspired by the rings on a cross-section of a giant redwood and the work of artist Simon Evans (14 Years, 2005) (Marshall, 2016).

Students were encouraged to approach their topic as investigators and to focus their attention on what they were thinking and doing. From that vantage point, they could see themselves as scientists and artists who inquired through methods and thinking germane to both domains.

Why was this project different from usual art or arts integration projects? In a nutshell, the difference lies in how students saw themselves and what they were doing. Students were encouraged to approach their topic as investigators and to focus their attention on what they were thinking and doing. From that vantage point, they could see themselves as scientists and artists who inquired through methods and thinking germane to both domains. This may seem like a tall order for third graders, but when Ms. Lane and Ms. Clay put complex concepts in simple third grade-level terms, students got it. This was demonstrated over and over in students’ written and oral reflections.

**Arts-based inquiry and integration**

We know from years of research that art provides many benefits to students and therefore belongs in schools. That leaves, however, another question: where should art be in schools; how does it fit into the scheme of things? Should it be a distinct discipline separate from other classes or should it be integrated into academic subject areas as a way of learning and teaching? The art as inquiry approach supplies a new perspective on this conundrum. It suggests that art could be the hub of curriculum integration while maintaining its integrity as a discipline. This represents a shift in thinking about the nature and role of the visual...
Art invites experimentation with concepts and information, allowing young learners to interpret ideas and information in their own ways, and to take ideas and information further to generate something new, something of their own.

Art-based inquiry and STEAM

Understanding how the various forms of human knowledge connect should be a goal of integration on the elementary and middle school levels as well. One promising initiative connecting art to the core curriculum is STEAM (Science, Technology, Engineering, Art and Math). A STEAM project makes learning in science and math come alive through projects that involve art, design, engineering and making things using various technologies. An exemplary model is Dramatic Results’ All STEAMed Up programs that include the Math in a Basket project in Southern California, which is discussed in this newsletter. Apparent in this project is how learners, in the process of studying and constructing baskets, can develop understanding of math principles while they deepen their appreciation of art. Many STEAM projects work on this premise: we learn by doing and making. This fits well with the art-based inquiry approach. To it, art-based inquiry adds a metacognitive layer and a frame of open-ended investigation.

Art-based inquiry and core skills

Visual art learning also belongs in the center of school because it contributes to another primary goal of today’s education exemplified in new education initiatives: the building of thinking skills. Learning how to think is a central theme in the Common Core State Standards (CCSS), Every Student Succeeds Act (ESSA) and the Framework for 21st Century Learning (P21, 2016). We have known for a long time that art practice is a cognitive activity that builds complex thinking skills, particularly in critical and creative thinking (Efland, 2002). The art-based inquiry approach however goes further. It builds research skills and, as noted above, metacognition. These higher-order thinking skills are highly transferable and, therefore, link art even closer to the general purposes of education and the academic disciplines. This has further implications: Students are no longer cast as receivers of information and readymade knowledge, but are seen as researchers who explore, discover, and construct knowledge. This builds a sense of agency, a sense that the student can contribute to or even change human understanding.

Art-based research has another critical contribution here, which directly connects to the research workbooks it often employs: building language skills in a way that is engaging and personal. These books are visual and written chronicles of exploration, experimentation, idea generation, and

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Claire Haug who researched monsters in her art class at Berkeley High School.

“More than anything else, what this class has taught me is that art is a learning process. Over the past two years, I haven’t just learned about monsters—I’ve learned about history, science, literature, and how it all ties together. Monstrosity is everywhere and art is the perfect medium through which to display this connectivity.”

— Claire Haug (2016)

Art-based inquiry takes connection making and understanding beyond simple connection making; it is a mode of integration that enables students to see systems differently and, therefore, in a more meaningful way. This is because it is investigation through an art lens that is critical and creative, logical, and imaginative. What I mean by that is: artist-researchers observe closely; they play with ideas; they think critically about them; and they interpret them in multiple ways—often ways that are poetic, even nonsensical. In participating in art-based research, students play with what they are studying. Artistic play is key; art invites experimentation with concepts and information, allowing young learners to interpret ideas and information in their own ways, and to take ideas and information further to generate something new, something of their own. Students also invent new forms and new ways of seeing; they create new perspectives, new understandings—deep understandings that are meaningful to them.

Perkins (1988) argues that the ultimate purpose of education is to develop understanding. To Perkins, “…understanding something entails appreciating how it is placed in a web of relationships that give it meaning” (1988, p.114). Art-based research is one powerful way to connect the dots and meet that goal—to bind academic together and build understanding. The following is a quote from a Claire who researched monsters in her art class at Berkeley High School.

Art invites experimentation with concepts and information, allowing young learners to interpret ideas and information in their own ways, and to take ideas and information further to generate something new, something of their own.
learning. In them, every step of the way is recorded and or illustrated. Combining visual imagery with verbal descriptions, storytelling, and reflections builds language skills.

**Concluding thoughts**

For all the reasons listed above and for many more, the visual arts belong in every child’s education, and they should be at the center of it all. This is borne out in the research on the benefits of the visual arts to learners and demonstrated in exemplary art integration initiatives such as Dramatic Results’ All STEAMed Up program’s Math in a Basket project and in The University of Oregon’s STELLAR program—and in the art-based inquiry approach at Larchmont Charter School, Creative Arts Charter School, and Berkeley High School. Fortunately, for art education we have great models for thinking, integration, and creative research in contemporary art that align with education goals. I urge art educators—those who want to teach art or teach through art—to look to models in contemporary art, a few of which are mentioned here, for inspiration. Ideas and methods in research-based integrative contemporary art can enrich learning experiences for students; they can humanize and open up learning across the curriculum; and they can help students make sense of what they are learning and see how it all fits together. Beyond that, they can bring serious play, inquiry, creativity, and imagination to school.

**Julia Marshall** is on the faculty at the School of Art at San Francisco State University. She is also the Design and Development Consultant to the Alameda County Office of Education’s Integrated Learning Specialist Program, for which she guides curriculum and instruction in the Integrated Learning Specialist Program, a professional development program for classroom teachers, teaching artists, and school administrators. Dr. Marshall is also on the editorial board of Studies in Art Education and the Research Commission of the National Art Education Association. Her interests and scholarship lie in art-centered learning, creative art-based inquiry, arts integration, and the role of contemporary art in the classroom.

**RESOURCES**


**GRANTEE SPOTLIGHTS**

**AEMDD: Weaving Together Art, Social Studies, and Math Through Basketry**

When archeologists first uncover remnants of a prehistoric civilization, they often look for baskets as a way to understand the culture and technological advancement of the people. In fact, basket weaving is one of humankind’s most ancient arts, and also one of its most universal. So when future historians look at the culture of Long Beach Unified School District in California, they will have a good window into the technology and artisanship of 21st century America, based on the work of the Math in a Basket program. “With Math in a Basket, we are bringing modern technology to an ancient art form, and doing so in a way that encompasses math, social studies, and art,” explained Christi Wilkins, project director of Dramatic Results, and an AEMDD grantee.

Students in the program, who are in the fourth grade, begin by researching different types of baskets and approaches to weaving, as well as the roles of basket making in different cultures around the world. Then, using a 3-D CAD CAM system, a virtual reality tool commonly used in architecture and engineering, they build an electronic model basket. “This technology allows students to rotate views, zoom in, and adjust measurements,” described Wilkins. “It offers students opportunities to explore their ideas virtually, testing out different geometric concepts and artistic visions.” After students have finished their computer model, they use it as a guide to create their physical baskets. According to Wilkins, this step is crucial to cementing students’ comfort with technology. “Many of
our students have never even touched an iPad before this project, and even those who have typically just use them to play online games,” observed Wilkins. “We are showing students how to use technology to make things, and this helps them see computers as more than just a game, but as something they can use to make something beautiful, and something that lasts.”

“We are showing students how to use technology to make things, and this helps them see computers as more than just a game, but as something they can use to make something beautiful, and something that lasts.”

—Christi Wilkins, project director of Dramatic Results and AEMDD grantee

Something else that should last are the art and math skills students learn as they make their baskets. The program is aligned to the National Visual Arts Standards, as well as Common Core Science Standards. According to Wilkins, aligning the lessons to the standards helped structure the program, while the hands-on approach is what makes the concepts stick. You can check out a sample lesson at their website. “Many students are kinesthetic learners, and they learn best when they have the chance to use their hands,” said Wilkins. The project uses the term “Making it REAL,” to describe their philosophy, which is that students benefit from opportunities to physically touch and manipulate objects as they learn. “To make a basket, you have to understand many mathematical concepts, such as volume and circumference, as well as artistic skills, such as color theory and making patterns. Many students have a hard time understanding these ideas in the abstract, but when they can play with the inputs on the computer, and then actually touch the materials with their hands, it clicks for them,” observed Wilkins.

The project is also clicking for teachers, even those who were not necessarily comfortable with technology and art to begin with. “A lot of teachers don’t think of themselves as artists, so they are sometimes intimidated by the whole idea of designing and making baskets,” noted Wilkins. To overcome this reticence, Dramatic Results provides a 32-hour training session during the summer, during which teachers design and make their own baskets. “We describe the training as an opportunity for teachers to come and play,” said Wilkins. “We make it fun, but it also helps teachers understand the process the students will go through.” After attending the summer session, Dramatic Results follows a gradual release model. “During the first year, we lead the sessions, in year two teachers are co-delivering lessons, and by the end of the program the teachers are doing it all, and we’re just there to support,” explained Wilkins. Teachers also can access video lessons through the Math in a Basket program on their iPads, as well as record and share lessons with each other.

Now in the third year of its 2014 AEMDD grant, Dramatic Results is pleased with its progress, which is measured through qualitative and quantitative measures. Students and teachers complete pre- and post-intervention tests to test art, math, and social studies knowledge. In addition, an independent evaluator observes classroom lessons and convenes focus groups with students and teachers. According to Wilkins, students and teachers have demonstrated knowledge gains in all subject areas, as well as evidence of greater perseverance, problem solving, and creativity. The greatest testament to the project, however, lies in students’ portfolios. “When you see the baskets students make and hear them talk about what went into them, you can tell they have absorbed the content and are excited to learn more,” said Wilkins.

To share their successes, Dramatic Results has undertaken a number of dissemination activities. For example, Wilkins and members of her team have led workshops for second through eighth-grade teachers in Oregon and Alaska, where they worked with local tribal communities to teach math through art and cultural integration. They have also participated in workshops with Girl Scout troops and public libraries. You can learn more about the program by visiting the Dramatic Results website and their Facebook page.

“Making baskets reinforces learning with hands-on activities.”

“When you see the baskets students make and hear them talk about what went into them, you can tell they have absorbed the content and are excited to learn more.”

—Christi Wilkins, project director of Dramatic Results and AEMDD grantee

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PDAE: Blending Virtual Reality and In-Person Training in Oregon

“The object of the artist is the creation of the beautiful. What is beautiful is another question.”
—James Joyce, A Portrait of the Artist as a Young Man

Every other Wednesday evening, teachers from across Oregon get together to learn new skills, plan lessons, and break into small groups for discussions and presentations, and provide each other with feedback, and they can do all this in their pajamas. No, Oregon schools haven’t dropped their dress codes; instead, these teachers are participants in the STELLAR project, a 2014 PDAE grant. Teachers from grades K-12 meet and interact through their personal avatars in Second Life, an immersive virtual reality environment. According to Dr. Lynne Anderson, project director, using this technology has helped make professional development more accessible, especially for teachers working in remote school districts. "The Second Life platform has been instrumental to the success of our project," reported Anderson. "Teachers are busy professionals, and it’s particularly challenging for teachers in rural areas to get together for ongoing professional development with their peers. Second Life creates such an immersive, all-encompassing experience that teachers feel like they are in the same room with each other, even though they may be hundreds of miles apart. The same technology allows us to provide professional development to teachers from multiple rural districts at the same time, and bring in guest speakers from all over the world."

A main focus of these virtual sessions is providing instruction on Visual Thinking Strategies (VTS), a student-centered approach to visual arts education. Through VTS, students are asked to interpret a piece of art, and then support their interpretations using evidence from the artwork itself; you can read more about VTS in our feature article. In the STELLAR Project, teachers are taught how to use three very specific questions to engage students in the process of orally responding to specific works of art: (a) What’s going on in this picture?; (b) What do you see that makes you say that?; and (c) What more can you find?. "The goal of VTS is to get students thinking," explained Anderson. "And we are finding that VTS is an excellent way to integrate visual arts with writing because both involve making a claim, and then learning how to back up that claim in a thoughtful, reasoned way." For many marginalized students, such as English language learners or those with learning disabilities, writing can be intimidating, but responding to a work of art orally is nonthreatening and more engaging. "Students respond to art in different ways, and they want to share that reactions with others. VTS helps students channel this impulse in a way that mirrors the process for argument writing, a form of academic writing that is foundational to success in school." A teacher echoed this point in a written reflection on her experience when she observed that “during VTS, students of all abilities show an increase in confidence; all students show an eagerness to share their viewpoint.”

The STELLAR Project’s professional development model is designed to help teachers learn how to use VTS to encourage students’ enthusiasm for art and draw connections between art criticism and other forms of expressive thought. The project begins with an in-person, two-day kickoff workshop, during which teachers are introduced to VTS’ approach for teaching students how to interpret visual art. The kick-off workshop also introduces teachers to Second Life, where they meet virtually every other Wednesday evening at 8 p.m. for the remainder of the nine-month program. "The follow up session in Second Life offer teachers the chance to learn new instructional skills, construct VTS lessons together, and engage in small group discussions to share successes or solve challenges they are experiencing in their classrooms," said Anderson. "Everything you can do during a face-to-face professional development session, we can do in Second Life; what’s more, we can schedule these sessions on weekday evenings, which works better for most teachers’ schedules." In addition to their semi-weekly virtual sessions, teachers get feedback from in-person classroom observations two times per year.

The STELLAR project also provides for teachers to bring their students to the Jordan Schnitzer Museum of Art (JSMA) located on the campus of the University of Oregon in Eugene, Oregon. During the field trip, students have an opportunity to engage with art work up close. "For many of the students, the trip to JSMA is the first time they have interacted with art in a museum setting. It makes the
experience come alive for them,” said Anderson. The field trip is also an opportunity for teachers to get a new perspective on VTS. “We do teacher observations at the museum, so teachers get feedback on their use of VTS in a new and authentic context.”

IN-FOCUS STANDARDS: NEW NATIONAL STANDARDS FOR VISUAL ARTS

The National Standards for Arts Education have shaped the way schools teach the arts for over 20 years. To ensure that arts education continues to stay on the cutting edge of research and best practices, the National Coalition for Core Arts Standards recently updated the standards for the five arts disciplines. We talked with Dennis Inhulsen, chief learning officer from the National Art Education Association (NAEA), about the new visual arts standards.

Q: How are the new visual arts standards different than the National Standards in Arts Education released in 1994, and what is behind these changes?
A: The new standards are different in how they are framed and organized to be useful for the classroom art educator. The 1994 standards were organized by grade-band levels of 3, 5, 8 and 9, 11, 12, whereas the new standards are grade-by-grade beginning with pre-school through three high school levels of “proficient,” “accomplished,” and “advanced.” The new standards are largely based on the foundational work of Wiggins and McTighe and their framework, Understanding by Design. The new standards are organized to provide the art educator with consistent learning progressions with the goal of preparing young people for adulthood with the tools and thinking processes necessary for success in a highly visual age.

Q: What are learning progressions in the visual arts?
A: The new standards support anchor standards common in all of the arts disciplines. The anchor standards are the overarching themes, whereas Enduring Understandings serve as the basis for the grade-by-grade standards—beginning with the youngest child and progressing through adulthood. The discipline-specific Enduring Understandings are consistent throughout, while the performance standards are written in a developmentally appropriate manner—grade-by-grade. For example, one Enduring Understanding for the process of Creating is: Creativity and innovative thinking are essential skills that can be developed. This Enduring Understanding is important in order for students to demonstrate their learning in art throughout their education in art. This particular Enduring Understanding assures students that they can be creative and think in new ways and reminds the art educator that this Enduring Understanding is critical for students of all ages, including the lifelong learner.

Q: The new standards emphasize artistic processes of creating, presenting, responding, and connecting. Can you describe them and the thinking behind them?
A: Organizing the standards by processes helps art educators with lesson and unit planning, supporting a complete and comprehensive art education experience. For students in the art studio/classroom and for practicing artists, the processes happen simultaneously. Through the process of creating, where most standards lie, the standards focus on the transference of skills and knowledge during the act of making art. Making art is where most instructional time is spent. We believe the artistic processes can and should occur during studio or making time. The process of presenting is new to the visual arts standards. Presenting supports student learning by introducing key visual art tenants such as place-based art, selecting and organizing artworks for display, and the context in which art functions in communities. How art is presented is key to developing artistic sensibilities for sharing. Responding, as a process, honors the student’s ability to personally respond to art in a variety of contexts at any age. Students learn to ask critical questions about the function or purpose for art and understand that art can have uniquely different responses reflective of cultures, histories, or societies. Connecting is a process that helps students “connect” the visual arts within their own communities and in cultures similar to or different than theirs. Connecting standards remind art educators that as human beings we bring unique meanings to how we understand art. Connecting standards assist teachers with strategies to provide relevance for students during art class.

Q: What has been the feedback from art educators in the field?
A: The feedback from teachers and administrators has been very positive. The standards are voluntary and local districts and states often tailor them for their unique locations. Teachers have expressed appreciation for the flexibility and depth of the new standards that focus on Big Ideas supported with Essential Questions. The Essential Questions serve as prompts to promote deeper thinking. Teachers have expressed appreciation for being given a starter set of essential questions for their inquiry-based classroom. Teachers have also expressed support for the standards because they are not media, technique, or language specific. They are flexible and honor individual teaching conditions. The standards can be achieved with minimal supplies, or through the use of emerging visual technologies.

Q: I understand that you are providing Model Cornerstone Assessments (MCAs); what are those and how will they help teachers with the standards?
A: The National Coalition for Core Arts Standards supports working groups of arts education experts who design and pilot Model Cornerstone Assessments. For visual arts,
we have developed authentic assessments based on the standards for grades 2, 5, 8 and high school. Piloting is ongoing but results are very encouraging. Teachers are adapting the MCAs to their instruction and are finding many ways to include assessment within their teaching. The MCAs take shape through identifying the processes—providing rubrics for scoring, instruction, vocabulary, skills and knowledge, strategies for instruction, inclusion, and differentiation and resources.

Q: Will the new visual arts standards help communicate the learning that occurs in the art classroom to parents, school leaders, and stakeholders?

A: Yes. In a standards-based educational system such as ours, the language we use to identify learning in the art classroom/studio is critically important. The new standards, through the framework of Understanding by Design, provide detailed targets for all students. Those targets can easily be highlighted and communicated to all stakeholders, more importantly to the students themselves.

Dennis Inhulsen was chair of the national visual arts standards writing team, former art educator and principal, past president of the National Art Education Association (NAEA), and now serves as the chief learning officer for NAEA.

SOURCE

DANCE (JANUARY 2017)
FEATURE ARTICLE: THE ARTISTIC PROCESS OF DANCE
By Shannon Dooling, special projects coordinator, NDEO

Dance, as an artistic and physical practice, seems to stand in contrast to some recent educational trends, such as a focus on standardized testing, digital technology, and core content. A closer look, however, reveals dance can and should play an important role in the well-rounded K-12 curriculum, both as a core subject and as an integrative tool to support learning in other subject areas. In this article, we highlight recent research showing how dance can benefit students in a number of ways, from improving student achievement through embodied learning, helping vulnerable student populations who are left behind by traditional teaching methods, and improving school culture through community building.

In 2013, the National Dance Education Organization (NDEO) set out to identify and analyze the latest research on dance education. As a result of these efforts, NDEO released Evidence: A Report on the Impact of Dance in the K-12 Setting, a report that summarizes the growing body of research showing that dance can have a positive impact on student achievement, teacher satisfaction, and school culture.

To understand why researchers are discovering the benefits of dance in K-12 education, it helps to understand some recent advances in neuroscience. A number of studies reviewed in the Evidence report have shown that dance prepares the brain for learning in unique ways. For example, the physical act of dance increases blood flow and oxygen, which boosts cognitive performance. Moreover, neuroscientists have found that:

“Movement activities are also effective because they involve more sensory input, hold the students’ attention for longer periods of time, help them make connections between new and past learnings, and improve long-term recall.” (Sousa, 2006).

In short, the physical practice of dance has been shown to prime students for learning. Of course, dance is more than just a physical practice: It is an artistic process, and research shows that teaching dance in schools can promote subtler and more complex forms of thinking, and help students learn how to express sentiments and convey meaning creatively (Sousa, 2006).

More than just steps
To help teach dance as an artistic process, the 2014 National Core Arts Standards in Dance establishes a framework for delivering dance education using the four parts of the creative process: creating, performing, responding, and connecting. Creating is the process
by which students work to conceptualize and devise original movement, organize it according to personal vision or artistic principles, and refine and revise their work. Performing refers to the process by which dancers realize, interpret, and present work; this includes everything from learning a codified dance technique to interpreting a choreographer’s movement for the stage. In the responding process, students analyze, interpret, and apply criteria to evaluate dance work. The connecting process encourages students to relate dance work to their own personal knowledge and experience, and place it in societal, historic, and cultural contexts. When approached through these artistic processes, dance education becomes more than just the teaching of codified dance steps. It becomes a multi-layered experience that offers opportunity for embodied learning.

**A tool for deep and lasting learning**

Research in the field of embodied cognition supports the idea that physical, sensorimotor, perceptual, and emotional experiences shape the way that we acquire knowledge, remember, reason, make judgements, problem solve, and understand the world. Dance as an art form engages the physical body, the senses, and the proprioceptive system (body awareness or one’s sense of body in space) in the process of executing, devising, and reacting to movement. This allows for a multi-dimensional learning process that taps into a range of learning styles, including visual, kinesthetic, auditory, interpersonal, and intrapersonal, among others. Dance is a crucial tool in the educational process, providing a deep and lasting learning experience for students.

Evidence cites several instrumental studies in which dance integration is shown to have an effect on student performance in other subject areas. These studies suggest that when integrated into the academic curriculum, dance activities can improve student achievement in math, science, reading, and language arts. As summarized in Evidence:

“All arts integration activities provide for multiple perspectives and have been described as helping to create a safe atmosphere for taking risks. … but dance offers a special opportunity to go beyond visualization and representation into full embodiment of and discursive experiences with new information” (p. 11).

**A bridge to academic success**

“**When reading and writing, it’s just a bunch of words to you, but to act it out and feel it, to learn the idioms, language becomes more internalized.**”

An embodied learning experience can be invaluable for students who are not well served by more traditional approaches to education, such as students from lower socioeconomic backgrounds, those with little family stability, students in underserved schools, and others. In fact, there is research to suggest that some children-at-risk, particularly non-white students in urban areas, are kinesthetic learners (Evidence, p. 10). For these students, dance has been shown to be a bridge to engagement and academic success. Even more, “child development research has shown that all children are kinesthetic learners as infants and toddlers; movement is how they navigate and find their way into and through the world of objects. According to Evidence “Dance builds on this deep-seated mode of learning, and can be an engaging and developmentally appropriate way to teach new academic content and skills” (p.10).

The AEMDD spotlight grantee in this issue exemplifies many of the ways dance education benefits students, especially those considered at-risk. As described in the spotlight, the DELLTA project engages English language learners in dance and theater education to help them develop language skills in an authentic, expressive context. In fact, an evaluation of the DELLTA project was reviewed in Evidence, which concluded that participating students “developed skills, strategies, and knowledge in theater and dance across cognitive, personal, and social domains that helped them become more literate human beings” (p. 29). Classroom teachers reported that a strong majority of the participants gained skills in theater and dance, developed physical awareness and control, and added expressive qualities into their school work. Students also developed skills such as “motivation, perseverance/task-persistence, focus, ownership of learning, spatial awareness, self-confidence, and cooperative learning/collaboration” (Evidence, p 32). Dance and theater provided an authentic context for English language acquisition and allowed students to embody the expressive capabilities of the language.

The DELLTA study included quantitative and qualitative evidence on the significant and substantial positive impact of this program. The qualitative evidence, particularly
quotes from classroom teachers, may be the most compelling. Two of these quotes speak to the importance of movement and dance in the students’ language learning. “Dance transcends language barriers, and new immigrants were able to let physical expression speak for them” (Evidence, p. 29). The second goes further to affirm the importance of embodied learning in language acquisition: “When reading and writing, it’s just a bunch of words to you, but to act it out and feel it, to learn the idioms, language becomes more internalized” (p. 30).

The other grantee spotlighted in this issue, Project Elevate in Florida, is also a good example of the benefits of a dance program. As described in the spotlight article, Project Elevate uses movement and drama to teach students about Florida folktales and habitats. This project, like DELLTA, uses dance to create an embodied learning experience through which students gain content knowledge along with skills for expression and collaboration.

A community builder
Both of the projects featured in the grantee spotlights provide examples of how dance can improve students’ attitudes toward learning, encourage higher-order thinking, and foster expression, self-awareness, and independence. What’s more, they also show how dance can be an important tool for building community among students. The community-building capacity of dance education is built into each of the artistic processes. Students learn to work collaboratively as they create dance together, and when they learn and interpret other students’ choreography for performance. When performing a group piece, students work as an ensemble, moving together in time and space to create something that is larger than their individual performance. Through the responding process, students learn to think critically and dialogue thoughtfully as they provide feedback and insight on dance work. The connecting process provides a social, cultural, and historical context for dance, challenging students to see it not only as a tool for individual expression but also as an integral part of society.

By experiencing dance through the artistic processes, students develop critical 21st century skills such as collaboration, communication, and creativity, along with soft skills such as professionalism, responsibility, and interpersonal skills. In addition, research cited in Evidence from the fields of neuroscience and dance-movement therapy suggest that “well-mediated dance sessions in K-12 schools” can “benefit children in terms of emotional health, school readiness, conflict resolution, multicultural education, inclusion classrooms, and the affective domain” (pp. 41-42). These factors all contribute to creating a positive impact on school culture, in which students are engaged in the learning process and prepared for workplace success.

Dance has been shown to have a positive impact on student achievement, teacher satisfaction, and school culture in the K-12 setting, according to studies reviewed in Evidence. Dance integration projects, such as those described in the spotlight articles, bring learning to life for students in an engaging, culturally relevant way that gets students invested in their education. Students learn to express themselves in productive and meaningful ways through the art of dance. Teaching dance through the artistic processes allows for multi-layered learning experiences, instilling 21st century skills and preparing students for college and the workforce. Research from the field of neuroscience suggests that embodied learning, including dance integration, allows for deep, lasting understanding of academic content that goes beyond rote memorization. Dance can be a critical tool for reaching and engaging underserved students, such as English language learners and children-at-risk. These students are often left behind by traditional teaching methods, and there is evidence that dance works to include, engage, and support their learning. By incorporating dance integrated learning into the curriculum, schools can work to close the achievement gap, build community among students, and improve school culture.

Shannon Dooling, MFA, is the special projects coordinator for NDEO. Shannon is a dance artist, educator, advocate, and writer, and is active as a guest teacher, choreographer, adjudicator, and coach for studios, community programs, and dance companies. She has taught in K-12 schools, universities, and private studios.

SOURCES:

WEBSITES:


ArtsConnection’s Developing English Language Literacy through the Arts (DELLTA) Website. https://artsconnection.org/topics/delta/

GRANTEE SPOTLIGHTS

AEMDD: Finding Joy in Dance

Between the awkward growth spurts and complex social dynamics, middle school can be a challenging time for any student. Now imagine navigating the rocky terrain of adolescence, plus learning the core curriculum, in a non-
native language. Across the country, middle-school English language learners (ELLs) are facing this challenge every day. But for students in 15 schools in New York City, they have an ally in ArtsConnection’s Developing English Language Literacy through the Arts (DELLTA) program. DELLTA, which received an AEMDD grant in 2014, offers ELLs the opportunity to express themselves through dance.

“ELL students often have a hard time communicating verbally, but dance offers an opportunity for students to express their thoughts with their bodies,” explained Carol Morgan, ArtsConnection’s deputy director for education and DELLTA project director. Indeed, a growing body of research shows that dance can serve as a bridge to language development by drawing a connection between physical movement and cognition. The DELLTA program builds on this connection through an inquiry-based model, which encourages students to construct and critique artistic work. “Our approach is to inspire students to think like artists,” said Morgan. “We are less interested in students getting the ‘right’ answer than in helping them work through the creative process.”

DELLTA students have opportunities to work together to choreograph dances and exchange peer feedback on their artistic choices. To facilitate students’ learning process, the project incorporates a variety of technological tools. Using iPads, students take photos and record their peers as they brainstorm, create, and rehearse. With the support of ELA and ENL teachers, students learn how to import photos and video footage, edit content, and self-reflect on video. According to Morgan, students’ interactions with this technology evolves as they better understand the artistic process. “At first, students want to delete practices or performances they don’t like, but over time they learn how important it is to see their progress,” said Morgan. “They learn that the creative process happens over time, and involves creative choices, feedback, revision, practice, and performance.”

The culminating product of DELLTA is a collaborative digital portfolio, which aims to tell a story about students’ learning processes, not merely to show polished artistic pieces. “The portfolios help the students think about how they are learning. What skills did they learn as they developed their dance? What conversations helped them improve? Our intention is for them to see their progress over time,” explained Morgan. By the end of the 2016-2017 school year, DELLTA will be ready to share the portfolio process and some student work through the ArtsConnection website.

“Participating in dance through the DELLTA program opened up a whole new world to her.”
—Carol Morgan, ArtsConnection deputy director for education and DELLTA project director

Although the student portfolios are not yet available, Morgan was able to share the story of one student who blossomed during her experience with the DELLTA program. The student was recent arrival from the Dominican Republic who spoke little English and had experienced interrupted formal education. “From the first day, she was a curious, interested student, but she had a difficult time expressing herself verbally,” recalled Morgan. “Participating in dance through the DELLTA program opened up a whole new world to her. Within six months, she was speaking English and volunteering to answer questions in other classes. Perhaps most importantly, she found her place in the social world of her classroom and school.” Watch here to see how other students have also built confidence, developed academic skills, and found joy in dance through the DELLTA program.

“Dance offers an opportunity for students to express their thoughts with their bodies.”
—Carol Morgan, ArtsConnection deputy director for education and DELLTA project director

DELLTA takes place once a week in ELL classrooms, with teaching artists, English Language Arts (ELA) and English as a New Language (ENL) teachers co-facilitating lessons. Teaching artists guide students through the artistic process, and lead them through standards-aligned topics such as space, expression, and emotions in dance; creating variation in choreography; and dance vocabulary. Learn more about one of ArtsConnection’s teaching artists, Kim Grier-Martinez, here.
Students in Florida are no strangers to turtles; it’s one of the perks of living in one of America’s subtropical climates. So when Jessica Oatman, the arts integration specialist for Sarasota County schools, was planning to incorporate dance into a second grade science lesson, it was only natural that she feature many students’ favorite reptile: the turtle. In collaboration with the classroom teachers attending her professional development sessions on arts integration, Oatman and her colleagues developed a lesson plan using movement and dance to show how turtles interact and adapt to their habitat throughout their lifecycle. These professional development sessions are supported by Project Elevate, a 2014 PDAE grantee.

Project Elevate came about after years of partnering with the Kennedy Center’s Any Given Child program, which assists communities in developing and implementing a plan for expanded arts education in schools. Using the Kennedy Center’s Arts Integration Framework, Project Elevate harnesses the power of dance to support student learning in reading, math, and science. In its first year, Elevate targeted second- and third-grade teachers and students. Now in year two, the program has expanded to include fourth grade as well.

To orient participating teachers on how to integrate dance into regular instruction, Oatman used modern dance pioneer Rudolf Laban’s model of human movement and “efforts” to show teachers how dance can be a language in itself. (Laban’s eight effort actions are simple and familiar verbs that are used to extend actors’ and dancers’ movement vocabulary and ability to play characters physically.) Project Elevate utilizes the model of gradual release; classroom teachers observe Oatman in the classroom, and then work alongside her to develop their own connections with academic content and movement. Check out a short video showcasing the program here.

Beyond the support teachers receive from the arts integration specialist, Project Elevate teachers engage in an arts-focused online professional learning community, posting and discussing lesson plans, and reflecting on previous lessons. Program staff report that after just one year of scaffolding and support, teachers have been inspired to try out art forms they hadn’t dabbled in before, reinvigorating their practice and instructional methods.

Partnerships are also key to the overall success of Project Elevate. Teaching artists from the Kennedy Center host workshops for Elevate teachers a few times a year, modeling and discussing specific arts integration strategies. See Kennedy Center teaching artist Randy Barron in action here. At the local level, Project Elevate will soon host the Sarasota Contemporary Dance Company. Members of the company will perform and work alongside classroom teachers to teach them about various dance forms so that teachers can effectively develop movement-integrated units. Program director Brian Hersh explains the importance of this background: “Before you can effectively integrate movement into the classroom, teachers need to see and understand the unique aspects of dance. We are continuing to bring in experts to spark ideas and provide context of different art forms for our teachers.”

“Before you can effectively integrate movement into the classroom, teachers need to see and understand the unique aspects of dance. We are continuing to bring in experts to spark ideas and provide context of different art forms for our teachers.”

—Brian Hersh, Project Elevate program director

Teachers are responding to these efforts. Last year, 94 percent of teachers participated in sustained and intensive professional development around arts integration, far exceeding the project’s target of 80 percent of teachers receiving this level of professional development.
reason for teachers’ sustained engagement may be students’ responses to the program. Although rigorous student data are not yet available, Elevate teachers have reported positive changes in students’ confidence and engagement, noting the arts can illuminate students’ unique strengths.

Students have been able to showcase their dance and theater skills and content knowledge throughout the year in small-scale share outs, as well as in larger culminating performances for the entire school. Program manager Maria Schaeder-Luera emphasized the importance of process over product in these events: “The focus has always been on the process of art forms, not the final product. Oatman and classroom teachers are creating lesson plans with skills and content knowledge in mind. Rehearsals and performances are important, but the real key is the knowledge students are building and the process involved in obtaining that knowledge.”

Moving forward, Project Elevate will expand into fifth grade during the third year of its PDAE grant, training a new group of teachers in arts-integration strategies. Beyond the grade expansion, program staff and educators have already begun talking about the future of Project Elevate. In the words of project director Hersh, “We’re having conversations now about expanding the scale of what we’ve been able to do with Elevate. Our goal is continuous and sustained development for teachers, and observable outcomes in both arts and content area for students.”

IN-FOCUS STANDARDS: NEW NATIONAL STANDARDS FOR DANCE EDUCATION

The National Standards for Arts Education have shaped the way schools teach the arts for over 20 years. To ensure that arts education continues to reflect cutting-edge research and best practices, the National Coalition for Core Arts Standards (NCCAS) recently updated the standards for five arts disciplines. We talked about the new dance standards with Susan McGreevy-Nichols, executive director of the National Dance Education Organization.

Q: How are the new dance standards different than the National Standards in Arts Education released in 1994, and what is behind these changes?

A: The 1994 Dance Standards were designed to define what students should “know and be able to do.” By providing a thorough grounding in a basic body of knowledge and skills organized around seven content standards, it established achievement expectations for students at the 4th, 8th, and 12th grade. The major difference between the 2014 National Core Arts Standards in Dance and the 1994 Dance Standards is the basic structure. Instead of 7 content standards, the new standards are structured around the processes: Creating, Performing, Responding, and Connecting. There is also a grade-by-grade progression of the dance specific performance standards.

Before beginning to write the standards, NCCAS investigated the format of standards across the nation and internationally through a study conducted by the College Board and found that many were organized around the artistic processes. Another deciding factor to structuring the 2014 standards around the processes was the 1997 National Assessment of Educational Progress (NAEP) Arts Education Assessment Framework that was based on the processes and therefore enabling a more authentic assessment of the 1994 standards.

Q: The new standards emphasize artistic processes—creating, performing, responding, and connecting—as drivers of curriculum, instruction, and assessment. Can you describe these artistic processes, how they were selected, and talk about the thinking behind this approach?

A: The processes are defined as follows:

• Creating ~ Conceiving and developing new artistic ideas and work
• Performing ~ Realizing artistic ideas and work through interpretation and presentation
• Responding ~ Understanding and evaluating how the arts convey meaning
• Connecting ~ Relating artistic ideas and work with personal meaning and external context

These four processes identify the specific “thinking” that occurs when students engage in the artistic processes and seamlessly work together. For example, in dance a student can view and analyze a historical piece of choreography (responding) that becomes an inspiration (connecting) for an original piece of student choreography; they rehearse and perform the piece for their peers (performing/responsing) get/give feedback and make revisions (creating/responding) and finally reflect on their overall learning as a creator and performer (creating, performing, responding, connecting). Working with the processes versus a menu of technical skills, enables students and teachers to work in any genre and actually allow for greater flexibility in curricular choices.

Q: How do the new NCAS Dance Standards compare with 2005 Standards for Learning and Teaching Dance in the Arts?

A: The NDEO 2005 Standards for Learning and Teaching Dance in the Arts are also structured around the processes and influenced much of the development of the 2014 standards. The 2005 standards are organized by the benchmark years of fourth grade (9-10 years), eighth grade (13-14 years), and 12th grade (17-18 years). They are more detailed and specific than the 2014 standards, and both can be helpful when used in tandem for developing curriculum.
Q: What are some examples of specific skills students in preschool, elementary, middle, and high school will develop through the framework of the new dance standards?

A: The 2014 grade-by-grade performance standards in dance are organized under specific processes. Each process identifies components that shape a progression that guides students through the process. “Strand components are subdivided further into lower-case letter performance standards that serve to guide areas of curriculum without dictating them. In the dance standards, each of the horizontal grade-by-grade progressions in the lower-case letter standards centers on a main idea. These Big Ideas (an Understanding by Design term coined by Wiggins and McTighe) are named as nouns”(Faber 2016). For example, creating has three process components: Explore, Plan, and Revise. Each of these components then has distinct strands (big ideas) of performance standards attached to it that progress PreK – 12. For example, the big idea in the process component Explore is a) Sources for Movement Ideas and b) Movement Generation and Development.

Q: To what extent do the new standards address integrating and/or connecting dance with other content areas, and how? To what extent do they focus on teaching dance on its own terms?

A: Best practice in integration bundles standards from various disciplines in authentic ways and provides students the opportunity to understand, produce student work, and meet standards in all the discipline involved. In addition to the Creating, Performing, and Responding processes, Connecting provides specific opportunities to integrate dance across the curriculum as expressed through the Anchor Standards 10 (synthesize and relate knowledge and personal experiences to make art ) and 11 (relate artistic ideas and works with societal, cultural, and historical context to deepen understanding). For example, the performance standards under this process encourage students to research content in other disciplines to create dance works that provide evidence of their understanding of the non-arts content while also demonstrating understanding of specific dance content.

Q: How do the Model Cornerstone Assessments (MCAs) reflect the new standards, and what advice would you give to teachers seeking to use them to guide their instruction?

A: The Model Cornerstone Assessments (MCAs) are examples of how you can identify and bundle together multiple standards by designing student work that will be produced as evidence of meeting those standards. These performance assessments are embedded in instruction and therefore enhance instruction, not take away from it. Teachers should use them to create and implement their own versions of MCA’s based on their unique curricular needs. The MCA’s model best practice in standards–based instruction and assessment.

Q: What input did you solicit from teachers before publishing the new standards? How many states have adopted or adapted the dance standards?

A: In 2013, NCCAS began releasing draft copies of the standards for public review. During a series of three public reviews, the coalition received over 1.5 million comments from over 6000 reviewers, all of which were meticulously studied by research teams, with results driving revisions and edits. Focus groups were convened by the State Education Agency Directors of Arts Education (SEADAE), the National Guild for Community Arts Education, Young Audiences Arts for Learning, The League of American Orchestrass, and the Kennedy Center, among others, to provide additional commentary. NCCAS heard a clear message in the reviews of the early drafts: a call to simplify the standards, to reduce the number of standards materials, and a clear call for more unity among the disciplines. In response to the comments, writing teams returned to the drawing board and simplified the grade-by-grade standards, created large, overarching anchor standards that crossed disciplines and moved Understanding by Design elements into optional instructional support packages.”

At this time, 15 states have adopted/adapted the National Core Arts Standards inclusive of the dance standards. Many other states have indicated that they have included adoption/adaptation in their standards development timelines.

RESOURCES
- http://www.nationalartsstandards.org
- http://nccas.wikispaces.com
- The National Core Arts Standards in Dance Education: A User’s Handbook. Rima Faber, Ph.D. 2016 (soon to be published on NDEO website)

MEDIA ARTS (APRIL 2017)

FEATURE ARTICLE: ADVANCING ARTS EDUCATION IN A DIGITAL AGE

By Kylie Peppler, Ph.D.

Youths today are awash in new digital media, ranging from artistic applications for their iPads and iPhones, to new interactive exhibits at local museums, to the streaming of video and music. As young people begin to consume and produce so much digital media, what is our role as P–12 arts specialists, teaching artists, classroom teachers, administrators, and arts partner organizations to guide them in this environment? A recent report from the Wallace Foundation, New Opportunities for Interest-Driven Arts Learning in a Digital Age (Peppler, 2013a), lays a vision for
educators to transition youths from being consumers to producers of new media through high-quality media arts education.

The current policy climate is rich with opportunity to help media arts practitioners and advocates make a case for media arts in today’s schools. Legislation like the Every Student Succeeds Act speaks to the demand for well-rounded curricula as well as many other national efforts to amplify the role of Science Technology Engineering and Math (STEM) fields, including computer science for all, in today’s schools and districts. Furthermore, recent advances, such as the inclusion of media arts in the new National Core Arts Standards, advocate for bringing digital media (including imaging, sound, moving image, and virtual and interactive media) into the arts education classroom. Because of the interdisciplinary nature of the work in the media arts, students are able to engage in project-based learning with deep learning outcomes across a variety of domains, making arts education highly relevant to high-quality teaching across the curriculum.

Because of the interdisciplinary nature of the work in the media arts, students are able to engage in project-based learning with deep learning outcomes across a variety of domains, making arts education highly relevant to high-quality teaching across the curriculum.

At the same time, schools and districts should consider the place of media arts in their education programs, not just because of their value for other domains beyond the arts, but because the new media arts are transforming the professional art world as well, becoming core to understanding the arts in the 21st century. Museums and galleries are displaying new kinds of interactive and media-rich art that are able to connect with audiences in new ways. Artists are working collaboratively across a range of disciplines to create media art pieces that are quickly becoming the new canonical pieces of the 21st century. Art historians and preservationists are struggling to keep pace with the new modes and methods of art making, ranging from websites to interactive installation art. In sum, media arts are needed in today’s schools to ensure the next generation will be deeply engaged in the arts.

**Student-centered and student-sourced nature of media arts**

Engaging students in media arts learning draws readily from the kinds of media exploration that dominates their out-of-school time. According to a report from the Kaiser Family Foundation, youths spend nearly 7.5 hours consuming media daily, ranging from social media to video-gaming to web streaming (Rideout, Foehr, & Roberts, 2010). Furthermore, because youths often engage in more than one medium at a time (e.g., glancing through Instagram on their phones while streaming a TV show on their laptops), studies show they are actually packing nearly 11 hours of media consumption into their day (ibid). As this data is nearly eight years old, one can safely assume that these numbers have increased.

**Engaging students in media arts learning draws readily from the kinds of media exploration that dominates their out-of-school time.**

Even as so much screen time has sparked concern among some parents and educators, it also represents an opportunity to connect with students’ interests and creative drives. In fact, much of this time is spent creating original work and sharing it with others. Statistics from the Pew Internet American Life Project suggest that nearly two-thirds of online youths create content at some point, from blogs and webpages to videos and artwork that they post to their social feeds or online communities (Lenhart, Purcell, Smith, & Zickuhr, 2010). Furthermore, much of youths’ media consumption informs creative production that extends beyond the screen, such as building robots or designing clothing, and that is shared at popular events like cosplay conventions (i.e., events where individuals design their own costumes based on favorite books and superheroes), and maker faires.

All of this points to a larger cultural trend that values different forms of creative production and the communities that form around it. Much of this trend is driven by the proliferation of technologies that place the production and sharing of arts — from music to visual media to dance — within the reach of anyone interested. A short sampling of these technologies gives an idea of the breadth of what’s available. Scratch, a visual programming environment, allows people to create and share interactive animations, video games, music, and art, while the continually evolving GarageBand software enables novices to compose music without traditional instruments or access to recording studios. Many different iPad painting apps enable painters to mix paint without paying for new materials or taking an art class; the Arduino microcontroller helps artists and designers create their own robotic sculptures or interactive environments. In sum, the media explorations of many youths are providing them with an interest-driven, informal education in artistic production.

Schools and districts are thus charged with the challenge of pre-service education and professional development for in-service teachers to help adults catch up with today’s youths. Fortunately, recent research has demonstrated that learning to teach the arts in the digital age may not be as challenging as one might initially think, with several
schools and districts leading the charge (Justice, 2015). As we see in the spotlight about DigitalWorks in St. Paul, the project’s leaders and teachers are responding to the interest of their colleagues to expand the federally funded pilot. In Chicago, ATLAS teachers’ plans for an online portfolio will enable other teachers beyond the PDAE project to adapt best practices in media arts professional development and arts integration. Fueling the interest in expanding and sustaining these efforts is the opportunity, as arts educator Sean Justice suggests, to employ teaching practices that most engage the ethos of 21st-century learning and echo the kind of authentic practices of innovation that artists, writers, scientists, and mathematicians engage in.

Inherently interdisciplinary nature of media arts

The infusion of new technology into arts education is bringing about new explorations of interactivity, theory, and form, from expressive digital stories to moving sculptures. In short, the new field of media arts naturally bridges to language arts, computer science, and other STEM fields. Similarly, the increased focus on creative expression in STEM fields — i.e., the “STEAM” (STEM + Arts) movement popularized by the Rhode Island School of Design — seems poised to create shifts in what is possible in the fields of computer science, engineering, and other STEM areas through the introduction of the arts.

A concern for many educators at this intersection, however, is whether the resulting experiences of the “introduced” discipline (e.g., the art concepts infused into an engineering course, or a robotics concept incorporated into an art lesson) are pale versions of those explored in their original contexts. It’s a question of how deep the arts-based learning is when infusing the arts into engineering, for example, if it focuses solely on a robot’s color. Similarly, how internalized are STEM concepts when an arts student uses a digital program to create a painting? The failure of many such lessons is one of imagination — that they result in fundamentally unchanged understandings of, and approaches to, either discipline.

Media arts are fundamentally an interdisciplinary domain, which moves beyond traditional disciplinary silos.

Media arts are fundamentally an interdisciplinary domain, which moves beyond traditional disciplinary silos. Evidence of this can be seen through fundamental shifts in the arts and other fields at this intersection; in the arts, artists are expanding the creative potential for design through new computational tools, which affords artists the ability to exceed the limitations of their existing tools to create interactive, time-based, and/or otherwise new art forms that were not previously possible. At the same time, the infusion of the arts into STEM has been shown to be equally transformative, with the emergence of tools and communities that not only engender new content understandings but also invite participation from populations historically underrepresented in STEM fields (Peppler, 2013b).

Recent research includes lessons learned from the design and study of the visual computer programming environment, Scratch, where youths came to see computer programming “like paper” because it allowed them to create whatever they wanted. It also helped them see media art making as deeply connected to traditional visual and performing arts as well as language arts (Peppler, 2010). Further ethnographic work demonstrated the strong connection between media art making and traditional literacy development in cases where youths were struggling to read and write at grade level (Peppler & Warschauer, 2012). This link between coding, media art making, and language development is further supported through recent neuroscience research by an international team of scientists using brain imaging with fMRI to find a deeper connection between coding, one of the core STEM competencies in media arts, and other languages than was previously known (Parnin, 2014).

Media arts can also move beyond the screen into areas of robotics, digital fabrication tools, or other innovative areas like e-textiles (i.e., wearable electronics that can be sewn into clothing and other fabric artifacts using conductive thread). Such efforts align traditional crafting and fine arts traditions, such as sculpture and 3D construction, with cutting-edge technologies. The result is a deepening of the conversations around the use of technology in the arts classroom as well as the explications of the extension of STEM curricula to include creativity, expression, and the arts. Many of these conversations are informed by co-teaching between classroom teachers and disciplinary
specialists, as the infusion of interdisciplinary projects into formalized settings is a rich space for collaboration. Not only does this help relieve the burden of classroom educators from adopting an entirely new set of practices and curricula on their own, but it also can help streamline various demands, such as standards alignment, by fitting more disciplinary concepts into each lesson.

**Media arts in school**

As the field of P–12 media arts education matures, several important questions remain that are pressing to policymakers, educators, and administrators. Perhaps one of greatest importance is how do we as policymakers and administrators create professional development opportunities and the space for educators to engage in learning something new to the degree that they feel comfortable adopting these media arts in the P–12 classroom? This is especially important because new technologies place a greater emphasis on learning how to learn as the field shifts quickly, with new tools and materials arriving frequently.

While there is an array of research under way, many districts around the country have turned to paid summer professional development opportunities that afford teachers the space to explore the new medium and create media art themselves in a supportive environment. In fact, many AEMDD and PDAE grantees, including those spotlighted in this newsletter, are exemplars of such practices and can point the way for districts nationwide.

It’s equally important to embrace high-quality studio practices, where the educator does not need to be the expert in the room. Instead, current or former students can be asked to showcase their expertise in the particular tools and applications while the educator can shift to demonstrating more effective problem-solving practices. Even reticent educators who feel like they need to know more before pulling new media art applications into their setting will be surprised (and delighted) at how the classroom transforms when teachers and students meet to share areas of expertise and engage in media art making together.

An artist by training, Dr. Kylie Peppler is an associate professor of learning sciences at Indiana University and engages in research that focuses on the intersection of arts, computational technologies, and interest-driven learning. In addition to serving as the director of the Creativity Labs, Peppler is the lead of the MacArthur Foundation’s Make-to-Learn initiative, an advisor to the Connected Learning Research Network, and a member of the 2015 National Educational Technology Plan Committee sponsored by the U.S. Department of Education. Peppler is the recipient of several recent awards, including the 2016 Mira Tech Educator of the Year and an NSF Early CAREER recipient, as well as of grants from the Spencer Foundation, Wallace Foundation, Moore Foundation, and MacArthur Foundation. Through this support, she has authored over 100 peer-reviewed publications, including authoring or editing more than 11 book publications.

**SOURCES**


**GRANTEE SPOTLIGHTS**

**AEMDD: Inspiring Tomorrow’s Leaders Through Media Arts**

At most elementary or middle schools across the country, when you ask students to identify their role models, you usually hear about sports stars or celebrities. As for students in Saint Paul Independent School District #625 (SPPS), you do get a fair number of Minnesota Vikings players, and you also hear the names of local graphic designers and other artists. Jan Spencer de Gutiérrez, project director for DigitalWorks, credits this phenomenon to their 2013 AEMDD project, which provides for resident teaching artists to work directly with students and teachers on media arts projects in elementary and middle schools in the district. “We recruit teaching artists who are making their living as artists in the community,” said Spencer de Gutiérrez. “We seek out artists who come from similar backgrounds, cultures, and racial identities as our students, and who are doing work they can relate to.”

The teaching artists are just one part of DigitalWorks, which is a district-wide program to integrate media arts content into existing math and English language arts (ELA) curricula in grades 3 through 8. The project provides educational technology, such as iPads and media arts applications, as
Teaching artists help build teachers’ and students’ confidence with technology.

well as professional development for classroom teachers. The professional development is designed to help teachers become comfortable with media arts technology and to find entry points between the media arts and their core content. In addition to attending workshops and summer training, teachers receive individual coaching from DigitalWorks specialists to develop specific lessons tailored to their classes. “Working one-on-one with teachers has been really important,” observed Spencer de Gutiérrez. “We focus on building their confidence with the technology, then finding natural points to use media arts in their lessons.”

By working directly with individual teachers, the DigitalWorks specialists and the resident teaching artists create lesson plans to match the interests and backgrounds of the classroom teachers and their students. For example, many students in SPPS come from refugee families, and teachers have found that students are excited about opportunities to tell their families’ stories. “In one fifth-grade classroom, we used a film editing app to create biographical documentaries about children’s families,” explained Spencer de Gutiérrez. “Many of the children in this class are from different parts of the world, and using media arts to tell their family histories was very powerful.”

“Many of the children in this class are from different parts of the world, and using media arts to tell their family histories was very powerful.”

—Jan Spencer de Gutiérrez, DigitalWorks project director and DELLTA project director

The project also helps students make connections between core subjects, their cultures, and artists in the community. In one fourth-grade classroom, many students come from Muslim families, so when they studied geometry, their teacher worked with a local artist of Iranian descent to incorporate Islamic art into their math lessons. Using district-provided iPads, students created stop-motion geometry videos based on Islamic traditional mosaics, while also learning about the culture behind the art form. “It is amazing to see the amount of pride kids put into their projects. They are showing themselves through their work, and it is really inspiring,” said Spencer de Gutiérrez. Be sure to check out an example video and an immersive project summary page.

“Using media arts has become ingrained in school culture, and it is spreading across the district.”

—Jan Spencer de Gutiérrez, DigitalWorks project director

DigitalWorks is now in its fourth year, and Spencer de Gutiérrez reports that the project has led to changes across the district. “Using media arts has become ingrained in school culture, and it is spreading across the district,” said Spencer de Gutiérrez. “Initially, we were only working in pilot schools, and as more and more teachers saw what was happening, they wanted to get involved, and we have expanded to more schools.” It helps that the program is demonstrating results. Students who participated in the program have outperformed peers on their Minnesota Comprehensive Assessment (MCA) expected growth scores in math. A teacher survey also indicated that students are demonstrating greater motivation and engagement, especially students who previously struggled in a more traditional classroom setting.

District leaders are excited to share these results, and even more so to show the products students create. Students’ work will be displayed at the St. Paul Public Library, and teachers and local artists recently collaborated with the Twin Cities PBS station to talk about the project and
learn from storytellers. DigitalWorks staff teachers and teaching artists have also been sharing their experiences at a number of national conferences, including the 2017 National Art Education Association and the Arts Schools Network, local arts educator conferences, and information technology conferences. In February, project leaders, SPS teachers, and teaching artists facilitated workshops at the Ordway Center for the Performing Arts for educators interested in expanding the use of media arts and arts integration in their classrooms.

**PDAE: Chicago Arts Teachers Leading the Way to Achievement and Success**

The amount of technology in today’s world can be overwhelming. Between the latest gadgets and new applications, it can sometimes feel like you’re drowning in a wave of updates. However, with the right resources and attitude, you can also ride the wave, and that’s what is happening through the Arts Teachers Leading Achievement and Success (ATLAS) project, a 2014 PDAE grant designed to help teachers use technology to integrate the arts discipline they teach (dance, music, theater, or visual arts) with English language arts (ELA) and math content.

A partnership between Chicago Public Schools (CPS) and the Chicago Arts Partnerships in Education (CAPE), ATLAS asks teachers to consider how technology can help them teach “big ideas” that cut across content areas. Participating teachers receive professional learning on a monthly basis, collaborating with fellow arts teachers and learning from local teaching artists. During professional learning sessions, teaching artists offer prompts designed to get teachers thinking about how to use technology to address these big ideas. For example, in one session, teachers may create a music project with Garage Band. In the next, they might record a piece of choreography with the support of an iPad. Working in groups of fellow music, visual arts, theater, and dance teachers, participants experiment and inquire about connections that can be drawn across content areas. Then, they work on designing units of study for students based on the creative workshop they experienced firsthand.

ATLAS asks teachers to consider how technology can help them teach “big ideas” that cut across content areas.

According to project manager Heather Lindahl, teacher collaboration has evolved throughout the project: “This group of teachers had a turning point during the professional learning sessions. Instead of looking towards the facilitator or teaching artist, they started turning to each other [to share ideas]. They all have unique sets of knowledge and experiences, and ATLAS has created a platform for them to share this knowledge.” This time for collaborative learning is particularly helpful for arts teachers, who are often isolated in their buildings. “Many arts teachers are the only arts educators in their discipline in their individual schools. They don’t have a chance to interface with others teaching their content areas except during this ATLAS professional learning time,” Lindahl noted.

To facilitate interdisciplinary collaboration, ATLAS created a technology lending library, which enables teachers to borrow everything from tablets to digital cameras. One highlight of the lending library is an iPad syncing station comprising 30 iPads and a laptop for the teacher to pull and sync material.

A fifth-grade classroom recently utilized the iPad syncing station to bring a big idea to life. Collaborating with a literacy teacher, visual arts ATLAS instructor Marina Lopez created a unit plan about human rights. After doing some background reading and having a discussion about human rights, students were exposed to the convention of Public Service Announcements (PSA), learning about visual language and strategies for highlighting an important message. Working in groups, students selected a human right that resonated with them and developed a plan of how to effectively represent it. Before moving to shooting and editing video with iPads, students created story boards to flesh out their ideas and vision. To close out the unit, students presented their human rights PSAs to their fellow classmates.

Lindahl emphasized the importance of focusing on the concepts, not the technological tool itself. “When students are recording and editing video, it’s more about making choices. What is the content? What should it look like?” Working from a key concept and then introducing the tool has been successful in classrooms. “Students are collaborating nicely. They are engaged with the technology, but also engaged with each other,” said Lindahl.
Hoping to build on the momentum teachers have created, the ATLAS project team has been focused on finding ways to ensure project sustainability. ATLAS teachers have been asked to submit unit plans, process documentation, and teacher and student reflections on lessons and processes, and share student artifacts as part of an online portfolio. “When teachers document their students’ creative process, the pedagogy improves, in part because doing so slows teachers down and forces them to read the student work more closely,” observed Lindahl. The ultimate goal is to amass an online resource for educators who are looking to take on arts integration and technology in tandem. In the future, the online portfolios will be made public so that others can utilize best practices from ATLAS teachers.

Beyond publishing teachers’ work, ATLAS has some big plans for the remainder of its grant. Professional learning sessions are now open to collaborating math and literacy instructors, allowing arts teachers the opportunity to actively co-plan alongside math and ELA teachers. ATLAS participants have started to provide professional development to other arts teachers in the district who have heard about the project’s successes and want to get involved. Lastly, ATLAS administrators are creating professional development for principals to build in-school infrastructures (schedules, systems, shared tools, and routines) that are conducive to facilitating arts-integrated units of study, particularly with regard to teacher collaboration across content areas.

IN-FOCUS STANDARDS: NEW NATIONAL CORE ARTS STANDARDS FOR MEDIA ARTS EDUCATION

We conclude our In Focus series on the National Standards for Arts Education with an in-depth look at the standards for media arts. We spoke about the new media arts standards with Dain Olsen, who was the media arts writing chair for the National Coalition for Core Arts Standards.

Q: The 1994 National Standards in Arts Education included four disciplines (dance, music, theater and visual arts). The 2014 standards added a fifth arts discipline, media arts. What was the motivation behind embracing media as a stand-alone art form?

A: While media arts have been a part of arts education for decades, primarily as digital imaging and filmmaking under the visual arts, it has become increasingly prominent in our culture. We are becoming a media-arts-centered society in which we know and learn about our world through multimedia, and we form our world through creative and connective digital processes. Media arts are clearly unique in their attributes, such as technological centeredness, multimodality, virtuality, and interactivity. Its complex forms, such as video production, animation, interactive web design, 3D design, and game design require specific expertise. Media arts educators have not been specifically served within the visual arts category and its standards, and the ever-increasing prevalence and sophistication of media arts have necessitated their full establishment as a separate discipline.

The National Coalition for Core Arts Standards (NCCAS) also understood the need to move beyond the notion of merely adding technology to the arts curriculum, to one of a distinct pedagogy formed around the full creative potential of students within these emerging contexts. This has led to standards with fidelity to the discipline’s processes, encompassing its evolving forms, and supporting a robust set of student outcomes, including multimedia communications, arts and academic integrations, production and design skills, and critical literacies in media and technology.

Q: The new standards emphasize artistic processes—creating, performing/presenting/producing, responding, and connecting—as drivers of curriculum, instruction, and assessment. Can you describe what these processes look like in practice, how these processes were selected, and the thinking behind this approach?

A: These four processes form a creative, cognitive format universal to all of the arts, which NCCAS worked hard to collectively determine. Underneath these, each arts
The creating process involves pre-production processes in the conceiving of innovative ideas, the prototyping of various models, and the planning of production activities. Producing is where those ideas, models, and plans are skillfully and collaboratively integrated, realized, and presented. Responding is the analytical, interpretative, and evaluative processes continually utilized in examining and revising creative work. Connecting is the synthesis and reflection processes necessary to understand the relationships, purposes, and contexts of media art works, including their legal, vocational, ethical, and cultural aspects, and global impacts.

This rigorous set of processes, which can seamlessly integrate with all arts and academic contents, forms a cultural-level cognitive process that extends beyond classroom walls. Students become creators of new content and knowledge, and act as artists, teachers, journalists, inventors, designers, directors, managers, and entrepreneurs. This endows students with media arts-based enduring understandings and the broad competencies necessary for preparation for college and 21st-century careers.

Q: What are some examples of specific skills students in preschool, elementary, middle, and high school will develop through the framework of the new Media Arts Standards?

A: Media arts fosters a plethora of artistic, design, production, and interdisciplinary skills at all grade levels, depending on the particular forms and sequences that students encounter, from digital image processing, and video and sound production, to interactive 3D model construction, game design, and virtual world design. Many of these can be fairly easy for even young children to begin exploring, expressing themselves through, and developing sophisticated content. Minecraft, for example, would be a viable media arts platform for elementary students for designing interactive worlds. Middle school students can produce inter-arts and academic broadcasts. High school students can produce interactive educational games and virtual reality experiences. Media arts are also “low threshold” in their accessibility to the full variety of learners, including those with severe learning challenges.

Q: How do these specific skills prepare students for the 21st-century workforce?

A: This diversity of forms and processes fosters a holistic range of skills and knowledge that are aesthetic, technical, cognitive, cultural, and inter- and intrapersonal. Examples of specific skill sets would include iterative development, research, scriptwriting, storyboarding, concept sketching, spatial and temporal composition, and mastering team roles, organizational processes, digital formats, audiences, technical systems, logistics, etc. Sequential instruction in these forms promotes higher-order competencies that would prepare the 21st-century workforce, including creativity, design thinking, collaboration, multimedia communications, media literacy, self-directedness, civic engagement, and contextual awareness. The potential of this holistic range is that media arts students can begin forming their own creative lines of inquiry and conducting the learning process itself.

Q: To what extent do the new standards address integrating and/or connecting media arts with other content areas, and how? To what extent do they focus on teaching media arts on their own terms?

A: These standards structure media arts as both a distinct and interconnected discipline that is inherently interdisciplinary. This is seamless integration in real-world applications that we can see in our 21st-century culture, tech incubators, and businesses, and that supports both media arts and academic mastery within authentic, experiential, and cultural contexts. A full media arts program can therefore serve the whole school as a central, nexus “DIY,” or “maker” environment for students to produce or design anything they can imagine.

The standards emphasize creative problem solving both within and through media arts productions. They support student-directed inquiry based on students’ own interests and concerns, and in developing solutions in media artworks. This real-world and student-motivated practice raises the bar in student performance. In just one example, a statewide media arts-based campaign in California has students envision their preferred school programs and offerings, and create advocacy videos for their local district school boards to fund via the Local Controlled Funding Formula. This has resulted in actual program changes at district and school levels, such as new arts programs and gender-free bathrooms. This project can incorporate aspects of English language arts (ELA), social studies, school governance, state and district budgeting, school programming, media literacy, marketing, the chosen academic focus, and the full range of video production skills.
In other examples, the challenge to design a 3D Mars community can incorporate earth science, biology, mathematics, engineering, health, architecture, and domestic design; interactive game design can incorporate every level of mathematics, programming, character and environmental design, story, audience, and marketing. Media arts students are encouraged to interact with and affect their worlds, and are empowered as cultural participants.

Q: How is assessment structured and utilized in media arts in order to achieve standards-based proficiency? What is the purpose of the Model Cornerstone Assessments (MCAs)?

A: As we can see from the above examples, media arts have a broad range of products, processes, and combined forms that would be measured depending on the specific instructional situation. The intended development of standards in media arts has been to achieve the enduring understandings and media arts’ 21st-century competencies mentioned above. Therefore, we deliberately avoided citing specific skills, techniques, and tools in the standards. This would be overly prescriptive, limiting in achievement, and inaccurate to such a complex, evolving discipline. Instead, we sought to qualify the student’s developmentally specified enactment of robust processes towards the creation of innovative and impactful products, including their participation in forming assessments and their own metacognitive reflections.

Q: How do the MCAs balance an adherence to standards while also encouraging and rewarding students’ creativity?

A: This emphasis on self-directing, lifelong creative capacity is also important for avoiding the tendency of students to merely emulate the formulaic products of a very commercial culture. We want students to attain resilient artistic confidence, creative empowerment, and critical autonomy. Therefore, the standards emphasize open-ended outcomes, divergent thinking, experimentation, creative problem solving, and the continual incorporation of critical analysis and feedback in the production process. The teacher would mark those as they occurred in the enacted process.

It is a challenge to clearly evidence every individual student’s “embodied” cognitive abilities in each instance, but they would become more clearly evidenced in the student’s artistic growth over time in an accumulative portfolio of original work and personal reflections.

The MCAs then provide more detailed models of projects, assessment rubrics, and rated student work. These examples support teachers’ understanding of how standards-based instruction is implemented and assessed, and how it may be adapted to their specific circumstances.
KENNEDY CENTER RESOURCES

Music
Looking for music integration how-to's and ideas for lessons, activities, and projects? Check out the Kennedy Center’s arts education website, ArtsEdge, and these suggested videos and Try It in the Classroom resources:

Arts Integration: Math
The Music & Movement Example video interviews teaching artist Marcia Daft, who points to the conceptual parallel between number concepts and music and movement. She describes how to make number concepts highly concrete, visual, social, auditory, and kinesthetic to help all students learn, from the most challenged to the most advanced. (Credits: Amy Duma, Lynne B. Silverstein, ArtsEdge)

Try It in the Classroom: Math and music coincide in this lesson plan that incorporates rhythm in recognizing AB patterns. (Credits: Barbara Gardner, adapted by Carol Parenzan Smalley)

Arts Integration: Social Studies
The Music Example video interviews teaching artist Reggie Harris, who discusses integrating music with history and social studies lessons. Reggie Harris helps students gain a personal connection to history—specifically, the Underground Railroad and the Civil Rights movement—by exploring how music has impacted people, historical events, and whole communities. (Credits: Amy Duma, Lynne B. Silverstein, ArtsEdge)

Try It in the Classroom: By engaging students in this problem-solving and discovery learning lesson, students decipher coded messages in songs from various African American spirituals. (Credits: Daniella Garran and Anita Lambert)

Arts Integration: Language Arts
The Poetry and Music video interviews teaching artist Deborah Sunya Moore. Deborah Sunya Moore’s work demonstrates how music has great potential for helping students understand and respond to poetry. Through the use of tempo, timbre, and dynamics, students compose music that captures the mood and meaning of the words. (Credits: Amy Duma, Lynne B. Silverstein, ArtsEdge)

Try It in the Classroom: Integrate music and poetry in this lesson plan, which incorporates all facets of music and literature as students use their creativity to set a poem to music. (Credits: Leslie A. Thomas, adapted by Carol Parenzan Smalley)

Arts Integration: Cross-Curriculum
The Music Example 1 video interviews teaching artist Stuart Stotts, who involves students in writing, singing, rehearsing, and performing original song lyrics that synthesize their learning in any curriculum area. Lyric writing is a strategy for engaging students in learning across the curriculum. (Credits: Amy Duma, Lynne B. Silverstein, ArtsEdge)

Try It in the Classroom: In this fun and engaging lesson plan, students compare Shakespeare’s sonnets to the rhyme scheme of contemporary hip hop music. (Credits: Theresa Sotto, adapted by Jen Westmoreland Bouchard)

Dance
Looking for dance integration how-to's and ideas for lessons, activities, and projects? Check out the Kennedy Center’s arts education website, ArtsEdge, and these suggested lessons and classroom resources:

• The Dance of the Butterfly (Grades K-2)
  This lesson uses dance and visual arts to teach students about butterfly biology. After reading The Very Hungry Caterpillar as a class, students examine photos of butterfly life cycles. Next, students work together on a graphic organizer demonstrating butterfly life cycle stages. Finally, students create and perform a dance about the life cycle of the butterfly.

• Weather and Wind (Grade 5)
  This lesson introduces the expanding and condensing properties of air masses and the unequal heating of earth as the force behind the wind. Students write a report on a topic related to wind and weather patterns, and create a dance to demonstrate their understanding of weather patterns.

• Systems of the Body: Movement and Choreography (Grades 6-8)
  In this lesson, students will create movement patterns that express information about the basic systems,
Digital Arts
Looking for media arts integration how-to's and ideas for lessons, activities, and projects? Check out the Kennedy Center’s free digital resource for teaching and learning in, through, and about the arts, ArtsEdge, and these suggested lessons and classroom resources:

- **ARTSEDGE Games: A new method of teaching the literary and dramatic arts** (Grades 9 to 12)
  The ArtsEdge Games platform is on the leading edge of the larger Teacher Toolkit in Game Design that will include a number of digital media-centered learning and production resources and instructional support for teachers to integrate the arts using game creation. Current and future games emphasize design thinking and the studio art process over coding and screen design, and are the product of co-design efforts by arts and media professionals working with classroom teachers. The introductory games were developed in high-need schools and designed to make meaningful connections between the arts and literature specifically, and English language arts generally.

- **Haiku Learning and Sharing the Beauty of Being Human** (Grades 5-8)
  In this two-day lesson, students will look beyond the basics of haiku poetry (three lines, 5-7-5 syllable format) and focus on the content of the haiku. Over the course of two classes, students will reflect on their daily lives to find small moments of peace and/or happiness. Using these moments and/or observations, students will create a haiku and an accompanying photograph, which will be combined into a digital visual class anthology.

- **Science Meets Artistry: the Work of Cai Guo-Qiang** (Grades 9-12)
  In this lesson, students will discuss the work of artist Cai Guo-Qiang within historical and cultural contexts. They will examine organizational principles in works of art, including their own works, and will understand the technological, logistical, and artistic factors that an artist takes into consideration when creating performance-oriented works in public spaces. To gain an understanding of how a solid knowledge base in science could affect the outcome of artworks, students will study the art of pyrotechnics, paying particular attention to the chemical elements required to create colors in fireworks displays. This lesson culminates in the use of an online learning tool in which students create their own compositions for explosion events modeled after the work of Guo-Qiang and write artistic statements inspired by online materials.

ArtsEdge is currently updating the site to reflect connections to the 2014 National Core Arts Standards, so some Media Arts Standards connections may appear as Visual Arts Standards until the changeover to the new national standards is completed.

Want to stay abreast of the games platform developments or other ArtsEdge resources? Visit ArtsEdge on Facebook at https://www.facebook.com/jfkcARTSEDGE.

This publication is available at https://arts.ed.gov/#program.

The Arts in Education Program is part of the Parental Options and Improvement division in the Office of Innovation and Improvement, U.S. Department of Education.
ABOUT THE PROGRAMS

Arts in Education Model Development and Dissemination (AEMDD)
AEMDD funds go to school districts and non-profit arts organizations working in partnership with school districts in elementary and middle schools. They should be used in public schools to improve the connection between arts integration and the other core academic subjects, to strengthen arts instruction, and to improve student achievement. This must be done by using approaches that have proven successful in doing this and enhancing, expanding, documenting, evaluating, and disseminating them. Recipients are required to compare the academic results of students benefiting from this program to students who are not. Get more information here.

Arts in Education National Program (AENP)
This program supports national level, high-quality arts education projects and programs for children and youth, with special emphasis on serving students from low-income families and students with disabilities.

Types of Projects:
- A project must serve low-income students and students with disabilities; and (b) conduct the following activities on a national level:
  - Professional development based on national standards for pre-kindergarten-through-grade-12 arts educators.
  - Development and dissemination of instructional materials, including online resources, in multiple arts disciplines for arts educators.
  - Arts-based educational programming in music, dance, theater, media arts, and visual arts, including folk arts for pre-kindergarten-through-grade-12 students and arts educators.
  - Community and national outreach activities that strengthen and expand partnerships among schools, school districts, and communities throughout the country.

Get more information here.

Professional Development for Arts Educators (PDAE)
PDAE funds go to school districts for grades K-12 in high-poverty schools. They are to be used for the professional development of educators teaching dance, music, media arts, theater, or visual arts. The professional development should be about improving arts instruction or integrating the arts into other core subjects. Professional development models used are expected to be of high quality and are required to be implemented in schools that have a poverty rate of at least 50%. Get more information here.